Atglen Station Concept Plan

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Chester County Planning Commission

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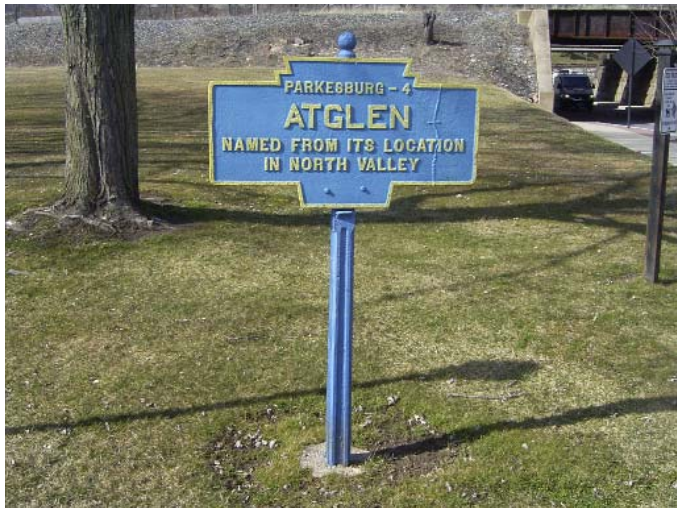
Introduction

The planning, design, and construction of a new passenger rail station in Atglen Borough, Chester County is one part of an initiative to extend SEPTA commuter service on the Paoli-Thorndale line approximately 12 miles west of its current terminus in Thorndale, Caln Township. This planning study was implemented through the Delaware Valley Regional Planning Commission's (DVRPC) Fiscal Year 2012 Work Program with the purpose of developing a station concept plan for a new passenger rail station in Atglen Borough. The final report was produced as a collaboration between the Chester County Planning Commission and Urban Engineers, Inc. (Urban) as follows:

Chapters 1 - 3 are a modified version of the County's ***2011 Existing Conditions of Potential Atglen Train Station Technical Memorandum***, dated June 30, 2011. These initial chapters provide an overview of the history, background, and existing conditions within the study area.

Chapters 4 - 7 were developed by the County and Urban as part of this current planning effort. These chapters contain an analysis of future ridership and parking demand, a description of the rail infrastructure and preferred station concept plans, and an estimate of anticipated costs.



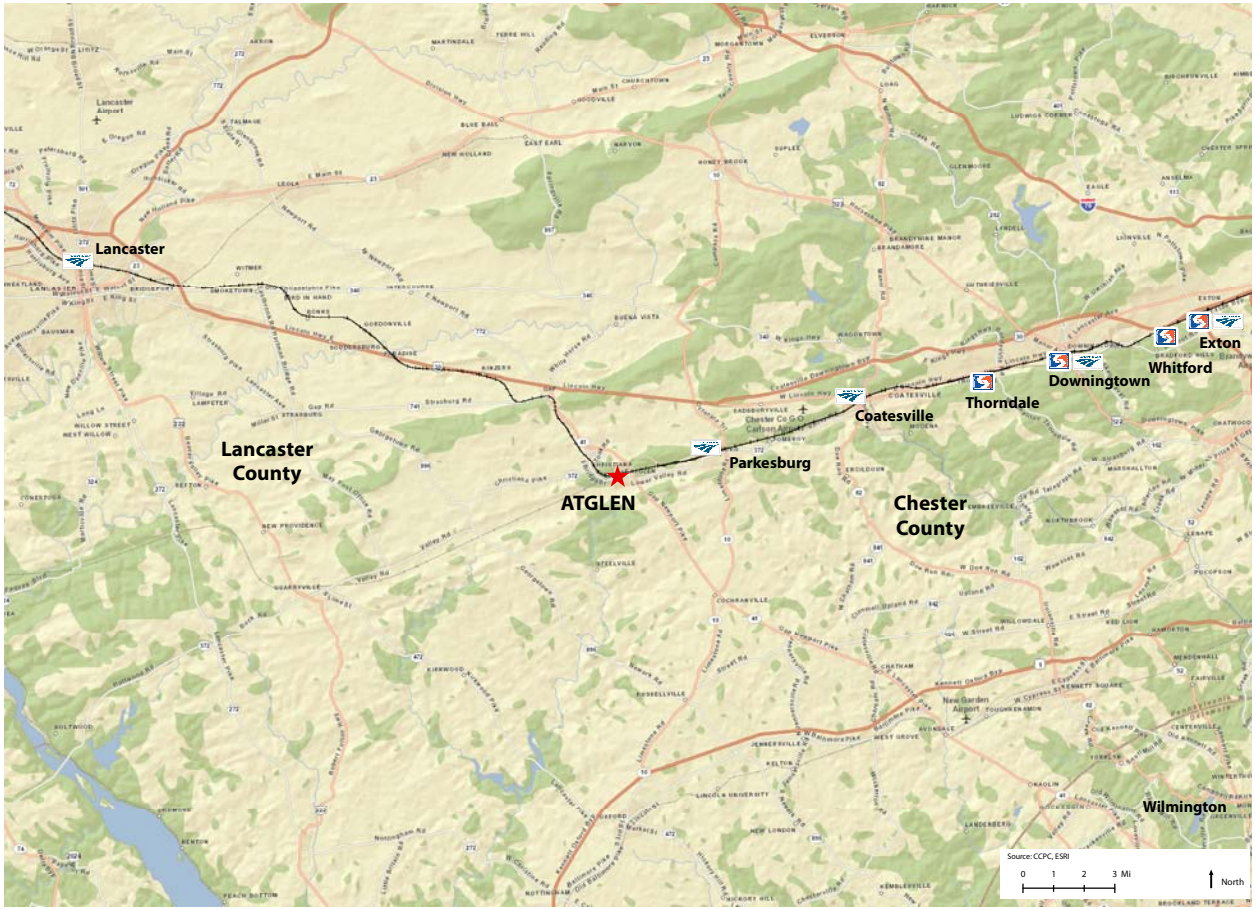
History & Background

Regional Context

The Borough of Atglen is located at approximate milepost 47 on Amtrak's Keystone Corridor between Philadelphia and Harrisburg. Suburban Station in Center City Philadelphia is located 47 track miles to the east of Atglen; Harrisburg is 57 track miles to the west. The proposed station is located approximately 12 track miles west of Thorndale (MP 35), the current terminus of commuter rail service on SEPTA's Paoli-Thorndale line.

From a highway context, Atglen Borough is located along PA Route 41, a major arterial roadway that connects US Route 30 to US Route 1, Interstate 95, and the Port of Wilmington, Delaware, which is located 25 miles south of Atglen.

Figure 1: Regional Context of Atglen



Historical Context

Atglen Borough, formerly known as Penningtonville, was serviced by the Philadelphia & Columbia Railroad upon the completion of the railroad in 1834. The topography of Chester and Lancaster counties situated Atglen as the final station within the Chester Valley before turning north and transitioning into Lancaster County via Christiana and Gap.

The strategic location of Atglen Station was bolstered in 1905, when the Pennsylvania Railroad constructed the Atglen & Susquehanna Branch (also known as the Low-Grade Line) which traversed Lancaster County to the Susquehanna River. The two railroads ran parallel through Atglen and connected in Parkesburg at Park Interlocking via a structured duckunder. In 1905 the Pennsylvania Railroad also constructed a new passenger station in Atglen, as pictured in **Figure 2**.

Passenger service to Atglen ended in 1952 and the passenger rail station was demolished in 1965. Lancaster station to the west and the Parkesburg and Coatesville stations to the east continue to be served by Amtrak inter-city rail service. SEPTA passenger service was extended beyond Downingtown to Coatesville and Parkesburg in 1991; however, service was terminated in 1995 due to low ridership and high operating costs. Freight service on the Atglen & Susquehanna Branch terminated in 1988; the tracks for this line were removed in 1990. **Figure 3** displays the existing conditions of site, showing Amtrak's two primary tracks as the only remaining rail service in Atglen.

In 2010-2011, Amtrak will be replacing the historic catenary lines along the old Atglen & Susquehanna Branch right-of-way with new transmission lines funded from the America's Recovery and Reinvestment Act (ARRA). From this upgrade various historic markers and/or kiosks will be erected along this corridor telling the story of the old Atglen & Susquehanna Branch freight line. One such kiosk is to be set in Atglen Borough at the proposed station site where the old freight line was once located.

Figure 2: Atglen Station, 1909

Source: Chester County Historical Society, West Chester, PA

Figure 3: Atglen Station Site, 2011

Comprehensive Planning Context

The restoration of rail service and construction of a new passenger rail station in Atglen is supported by comprehensive plans at the regional, county, multi-municipal, and municipal levels. A brief description of each relevant plan is included:

Connections 2035: Delaware Valley Regional Planning Commission (DVRPC)

Atglen Borough is defined as a "growth suburb" in the plan's designation of planning areas and centers. Parkesburg Borough is defined as a "rural center." The surrounding municipalities are defined as "rural area."

The Paoli-Thorndale line extension to Atglen is listed as a major regional transit project in DVRPC's 2035 Long Range Plan, Connections. The project is listed for $56.9 million of construction funds for the 2010-2015 timeframe.

Lancaster County Growth Management and Long Range Transportation Plans

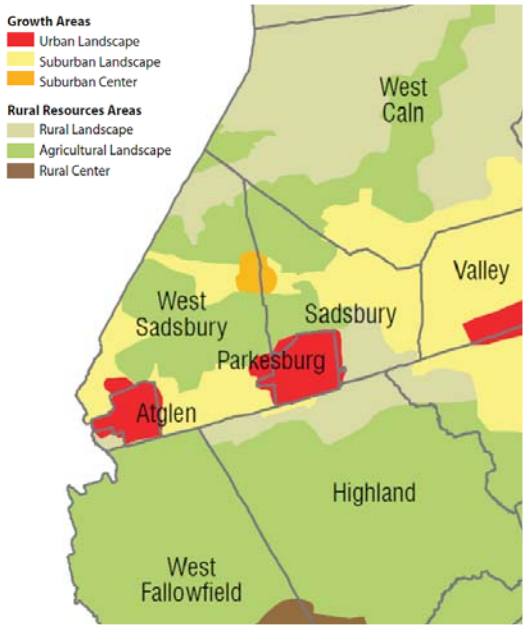
Lancaster County's Growth Management Plan identifies the Christiana-Gap urban growth area, which includes Christiana Borough and portions of Salisbury and Sadsbury townships.

Within Lancaster County' Long Range Transportation Plan, a proposed Amtrak station in Paradise Township is listed within the Plan's "Unfunded Projects/ Needs" section.

Landscapes2: Chester County Comprehensive Plan

Chester County's livable landscapes map identifies the borough of Atglen as "urban." The area surrounding Atglen Borough is designated as composite of suburban, rural, and agricultural landscapes.

As a policy-plan, specific transportation projects are not identified; however, the Route 30/Amtrak Keystone corridor is identified as a "multi-modal transportation corridor," which is defined as prioritized corridors for transportation investment.



Source: Chester County Planning Commission, Landscapes2

Octorara Regional Comprehensive Plan (Chester County), 2004

This multi-municipal comprehensive plan includes the townships of Highland, Londonderry, West Fallowfield, and the boroughs of Atglen and Parkesburg. References to the restoration of passenger rail service include:

- The economic development objective calls to "strengthen the role of Parkesburg and Atglen as multi-purpose, people-oriented small town centers for the Region."
- Action 8.63 suggests a Feasibility Study to extend the SEPTA Paoli-Thorndale line to Parkesburg and Atglen as a high priority.

The plan identifies growth area categories within Atglen as small town center and urban residential. The proposed station site is within both of these future land use categories.

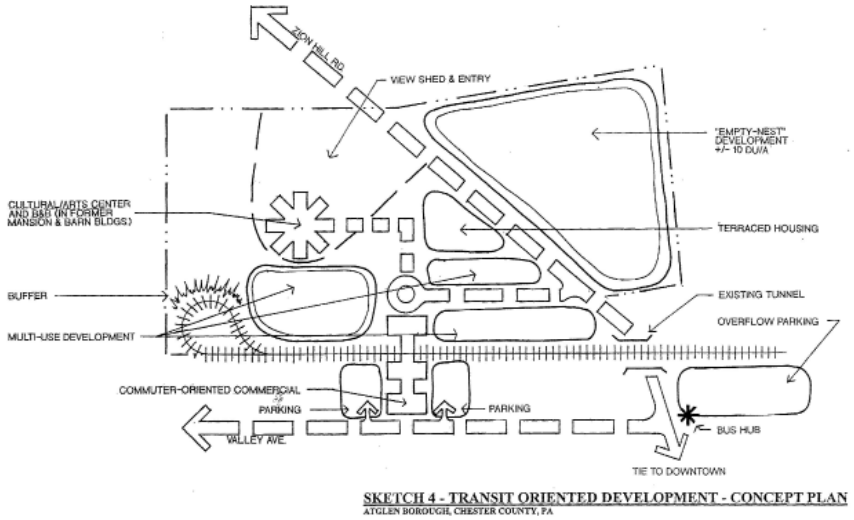
Octoraro Region Joint Strategic Comprehensive Plan (Lancaster County), 2004

This multi-municipal comprehensive plan, includes the townships of Bart, Colerain, and Sadsbury and the Borough of Christiana. As Atglen's "sister" Borough to the west, Christiana has some of the same growth management strategies and possible non motorized linkages to the proposed station site via Zion Hill Road. There is no mention of Christiana's train station as it related to passenger rail service, but there is mention of enhancements to the Atglen-Susquehanna Trail in Bart and Sadsbury townships along the old freight line located south of the existing active rail-lines.

Atglen Borough Comprehensive Plan, 2000

Atglen Borough's Comprehensive Plan, which is the Borough's vision document that assists in developing strategies for growth and development over the next twenty years, listed reexamining a feasibility study for a train station in the Borough as an objective under the Public Transit Goal. Also a transit oriented development (TOD) overlay zone for the area north of the railroad is examined under the Opportunity Site Development/ Redevelopment Strategy section of the Plan. A concept plan, as shown in **Figure 4**, displays options on how to develop the TOD zone.

Figure 4: Train Station Concept, Atglen Borough Comprehensive Plan (2000)



Source: Atglen Borough Comprehensive Plan, 2000

Atglen Borough Main Street Plan, 2001

The Borough of Atglen Main Street Plan focuses on the four-prong approach of the National Trust for Historic Preservation's Main Street Center, including organization, promotion, economic restructuring, and design. The Main Street Plan was adopted as an amendment to the Comprehensive Plan and established a specific plan of action for the main street corridor. Phase three of this plan called for a potential train station to be developed with adjacent parking.

Atglen Borough Urban Revitalization Plan Update, 2010

The latest planning document to be amended to the Comprehensive Plan is the Borough's update of its Revitalization Plan. The original revitalization plan, which was adopted in 2002, identified projects for funding opportunities through the Department of Community and Development Community Revitalization Program (CRP). Since the old plan needed to be updated, the Borough identified new projects. Action 32 of the plan lists Atglen Train Station as a high priority for the Borough.

Recent streetscape improvements along Main Street

Previous Rail Extension Studies

Two previous technical studies have evaluated the extension of SEPTA rail service to Atglen:

Stone Consulting & Design Study, 2005

This study, funded by Coatesville City, was the first technical report that evaluated the potential of extending the Paoli-Thorndale line beyond its terminus in Thorndale. The study recommended stations at Coatesville, Parkesburg, and Atglen, identified weaknesses in SEPTA's prior service to Coatesville and Parkesburg, provided infrastructure cost estimates, and recommended additional technical evaluation including a ridership analysis, more detailed cost estimates, and a funding implementation plan.

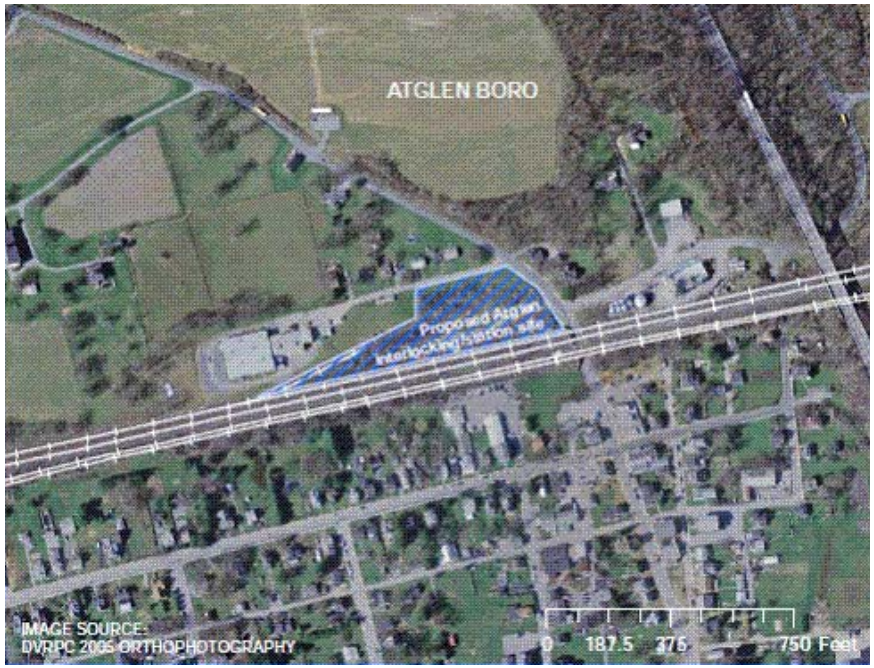
Needs and Opportunities for the R5 Extension West of Thorndale, DVRPC, 2007

At the request of Chester County, DVRPC staff conducted a technical evaluation of the extension of SEPTA's Paoli-Thorndale line (formerly known as the SEPTA R5) to stations at Coatesville, Parkesburg, and Atglen. The report estimated ridership for the project, identified capital and operating expenses, and defined policy alternatives for advancing the project.

Ridership for the Paoli-Thorndale Extension project was estimated to a 2020 horizon year for the entire project using DVRPC projections adopted in 2002. The report estimated 456 daily trips (or 228 new riders) would use the rail extension. Based on existing parking constraints, DVRPC identified the need for 178 additional parking spaces between the Coatesville, Parkesburg, and Atglen stations to accommodate the estimated ridership.

Within the technical study, DVRPC identified the Amtrak-owned parcel north of the railroad right-of-way – the site of the former passenger rail station—as the location for the proposed Atglen station (see **FIgure 5**).

Figure 5: Atglen Station Site as shown in 2007 DVRPC Study



Source: Delaware Valley Regional Planning Commission, 2007, Needs and Opportunities for the R5 Extension West of Thorndale. Page 22

Related Projects to the Paoli-Thorndale Extension

Implementation of the Paoli-Thorndale Extension is reliant upon the completion of various sub projects, which are outlined in DVRPC's 2007 Needs and Opportunities Study. Three project elements have advanced since 2007, which merit updating:

Park Interlocking (MP 46.3)

As part of their improvements to the Keystone Corridor that included concrete ties and an upgraded interlocking, Amtrak installed a new interlocking between Parkesburg and Atglen which is still referred to as Park Interlocking (the cross-over capabilities of the former Park interlocking have been retired, leaving only access to the Parkesburg Industrial Siding). As noted by previous technical studies, an interlocking capable of efficiently turning SEPTA trains was identified as a critically-needed infrastructure improvement for the potential Paoli-Thorndale Extension project.

Coatesville Station

In 2010, a design charette was undertaken by PennDOT, with support from Coatesville City and Chester County, to identify a preferred improvement concept for the Coatesville Train Station. Following the charette, $15 million in funding was programmed on the regional transportation improvement program (TIP) for station improvements. Currently, the project stakeholders are working through preliminary engineering for the station improvements.

Silverliner V Regional Rail Car Acquisition

SEPTA is in the midst of acquiring 120 new Silverliner V regional cars to replace existing Silverliner II and III rail cars. Upon full procurement of the rail cars, SEPTA will have sufficient rolling stock for the operation of the Paoli-Thorndale Extension.

Stakeholder Process

Study Advisory Committee

At the onset of this project, a Study Advisory Committee (SAC) consisting of representatives from the Chester County Planning Commission, Urban Engineers, Atglen Borough, West Sadsbury Borough, SEPTA, Amtrak, PennDOT, and DVRPC was established. The SAC met three times over the course of the project:

- January 20th, 2012 at Atglen Borough Hall
- February 28th, 2012 at the Chester County Planning Commission
- April 12th, 2012 at Atglen Borough Hall

The SAC guided the study process and provided valuable feedback on station requirements, the evaluation of alternatives, and other local priorities. The SAC also reviewed and provided feedback on interim deliverables including the station concept plan, renderings, cost estimates, and draft report.

Technical Review Committee

This project also benefited from the expertise of a Technical Review Committee (TRC) consisting of representatives from SEPTA and Amtrak. The TRC met twice over the course of the project:

- February 17th, 2012 at SEPTA
- March 23rd, 2012 at SEPTA

The TRC meetings provided an opportunity to meet with personnel from SEPTA and Amtrak to determine how a new station in Atglen would impact their operations and review the rail infrastructure and station concept plans in detail.

Borough Council Meeting

An overview of the project was presented to the Atglen Borough Council at the May 7th, 2012 monthly council meeting, which was also open to and attended by members of the public. The following materials were presented:

- Rail Service Schematic
- Preliminary Track Layout
- Station Concept Plan (Plan & Renderings)
- Preliminary Capital Cost Estimate

Following the presentation, there was a period allotted for comments and questions. In general, comments from Borough officials and members of the public were positive and focused on the feasibility and funding aspects of this initiative. No changes to the physical plan were proposed at this meeting.

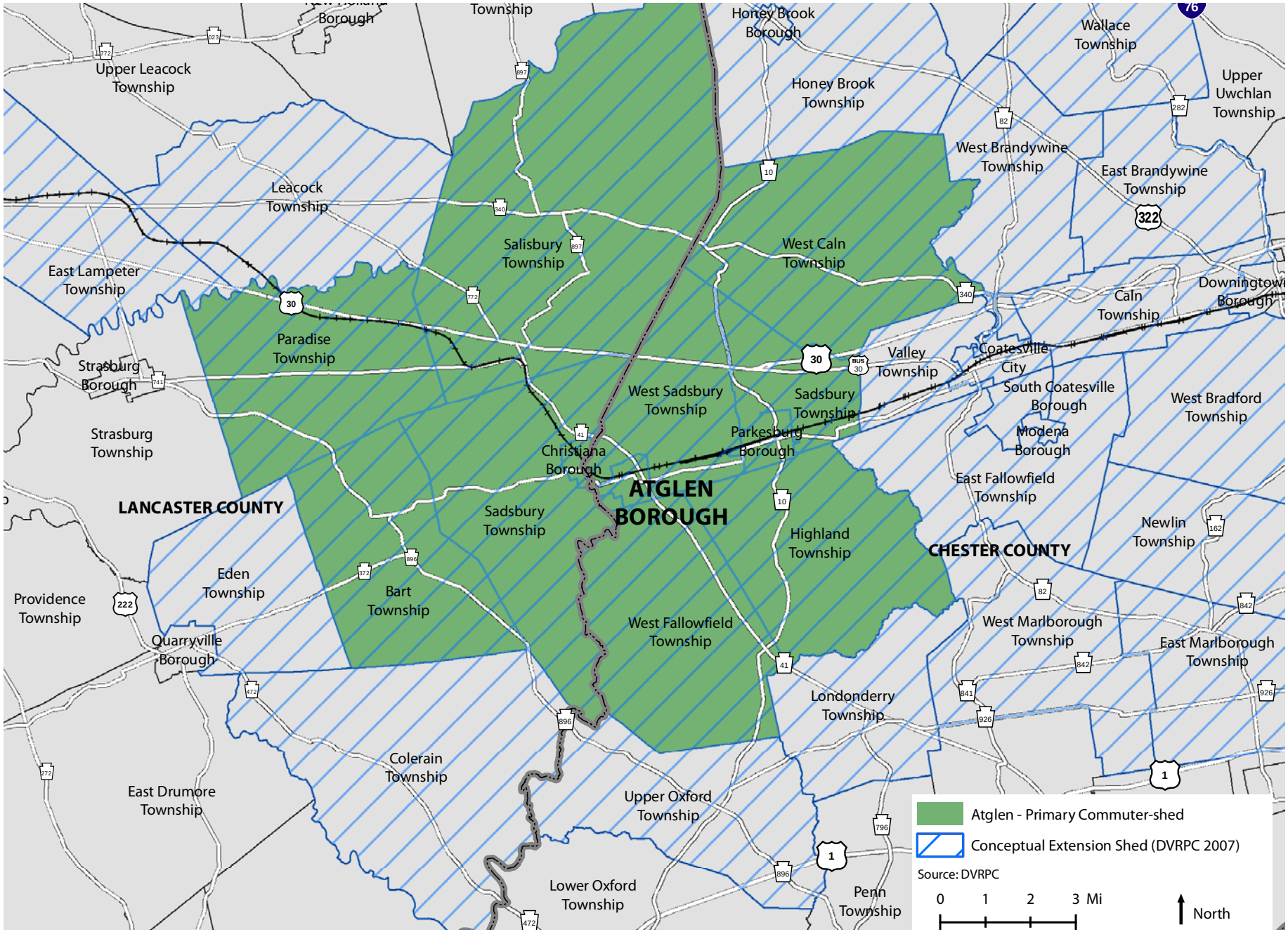
Study Area Profile

Primary Study Area

A primary Study Area, or commuter-shed area, was established for this study as the focus for evaluation of the transportation network and Study Area demographics. This area is defined as the primary area that will utilize the Atglen Station, as displayed in **Figure 6**.

The Study Area was established by referencing license plate surveys that were conducted at the Thorndale, Downingtown, Whitford, and Exton stations as part of DVRPC's Paoli-Thorndale Extension study. Within this study, DVRPC defined a "conceptual extension shed" for the entire Extension Project. The primary commuter-shed area for the Atglen Station is defined more narrowly than DVPRC's extension shed to focus on the municipalities that will principally generate ridership to the Atglen Station. Despite the proposal of a station in Parkesburg, the Study Area was defined concentrically to include Parkesburg Borough, Sadsbury Township, and West Caln Township because prior license plate survey on the Paoli-Thorndale line reveal a concentric distribution.

Figure 6: Atglen Station Primary Study Area



Transportation Network

The transportation network of the Study Area is principally comprised of the regional highway network and Amtrak's Keystone Service rail line. There are limited existing bus transit routes, bicycle, and pedestrian amenities. A more detailed description of each mode is outlined:

Roadways

US Route 30 and PA Route 41 are the predominant arterial roadways within the Study Area, as displayed in **Figure 7**. US Route 30 traverses east-west connecting Lancaster County, US 222, and PA 283 to Chester County and points east, US 322, US 202, and PA 100. The roadway is a two-lane, signalized facility from PA Route 10 to the west. East of PA 10, US Route 30 splits to a four-lane expressway, while Business Route 30 continues as a two-lane arterial into Coatesville. Average daily traffic volumes on Route 30 within the Study Area generally range between 17,000 and 23,000 vehicles per day.

PA Route 41 is a two-lane arterial that connects to US 30 in the village of Gap (Salisbury Township) and links to Wilmington, Delaware, US 1, and I-95. Within the immediate vicinity of Atglen Borough, Route 41 is grade-separated from Liberty Street/Swan Road and Amtrak's Keystone Service. South of the bridge overpass, Route 41 intersects Route 372 (Lower Valley Road) at a signalized intersection. Average daily traffic volumes on Route 41 range from 17,000 near Gap to 10,000 within West Fallowfield Township.

As displayed in **Figure 7**, other roadways that provide local circulation to Atglen Borough and the station area include PA Route 372 (Lower Valley Road), Upper Valley Road, Zion Hill Road/Main Street, and Swan Road/Liberty Street.

Peak period traffic counts were conducted as part of this study to understand existing travel patterns and evaluate multi-modal station access for vehicles, pedestrians, and bicycles. The counts were conducted between 4:00-5:00 pm at the following intersections:

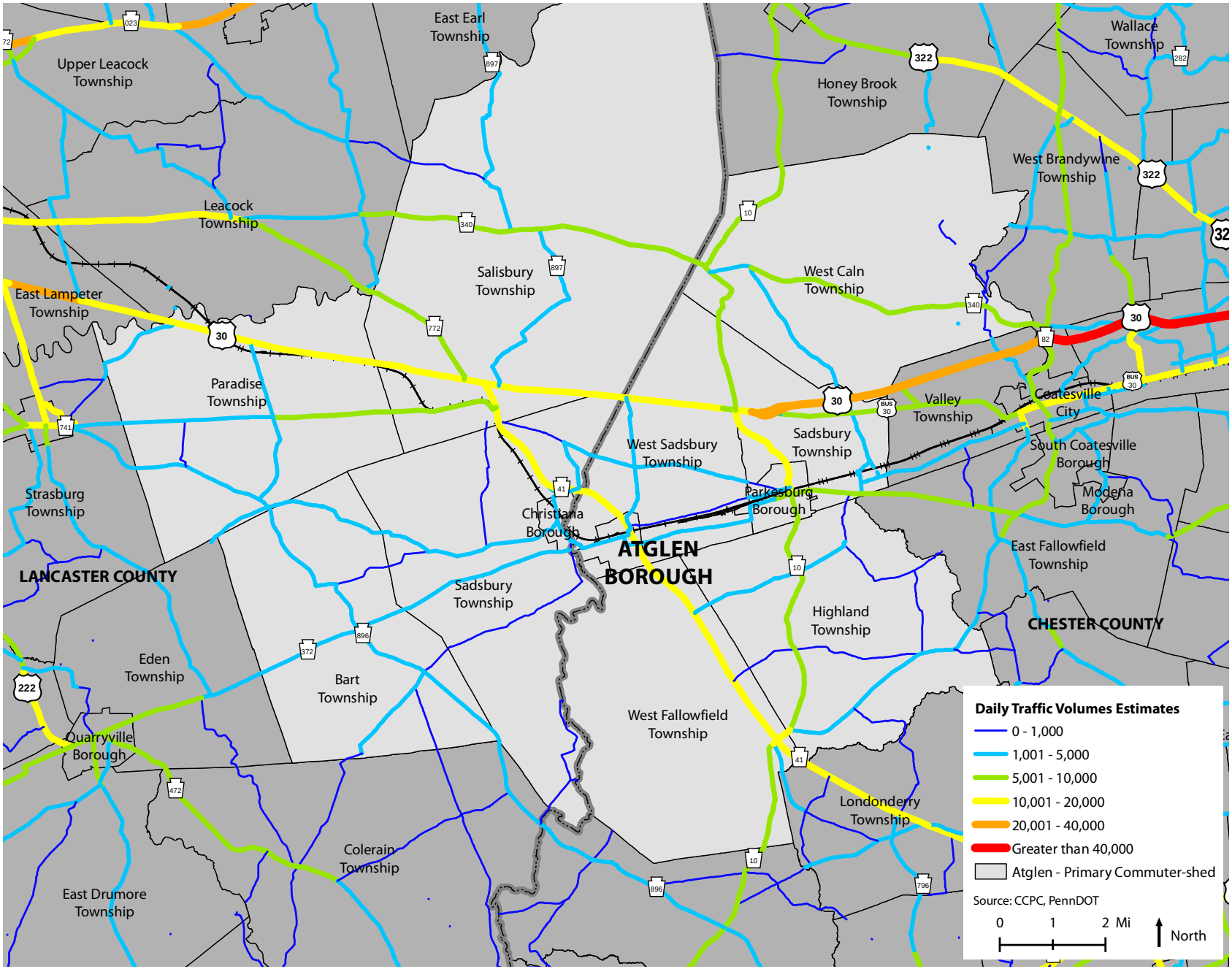
- Valley Avenue and Main Street
- Route 41 and Lower Valley Road

In general, the observed traffic volumes were relatively low at both intersections. Regular pedestrian activity was observed at the Main Street intersection, while pedestrian activity was very limited at the Route 41 intersection due to its location at the outer edge of the Borough in a more industrial/rural area. The full traffic counts are located in **Appendix A**.

Truck traffic along Route 41

Figure 7: Average Daily Traffic Volumes

Source: PennDOT, 2009



Public Transportation

Three bus routes and Amtrak's Keystone Service provide public transportation to the Study Area. Amtrak service is the only public transportation service that completely traverses the Study Area.

Amtrak Keystone Service (Parkesburg)

Amtrak's Keystone Service provides 14 roundtrips between Philadelphia and Harrisburg. Parkesburg station is served by 10 weekday trips to Philadelphia and 9 weekday trips to Harrisburg. On the weekends, 7 trips are provided to Philadelphia and 6 trips to Harrisburg. Travel time to both Harrisburg and Philadelphia is approximately 60 minutes from the Parkesburg station.

Coatesville Link: Transportation Mgmt Association of Chester County

The Coatesville Link, operated by the Transportation Management Association of Chester County (TMACC), operates 13 weekday roundtrips and 12 Saturday roundtrips between Parkesburg and Coatesville.

Red Rose Transit – Route 14

Red Rose Transit's Route 14 bus route provides five roundtrips on weekdays and Saturdays on Route 30 between the village of Kinzer in Paradise Township (Slaymaker Hill Road) and the City of Lancaster. The service entails two AM peak trips, one mid-day trip, and two PM peak trips. No Sunday service is provided.

Red Rose Transit – Route 13

Red Rose Transit's Route 13 bus route provides eight roundtrips on PA 340 between the village of Compass (PA 10) in West Caln Township and the City of Lancaster. Service is provided at roughly 75 minute headways. Three round-trips are provided on Saturdays. No Sunday service is provided.

Bicycle and Pedestrian

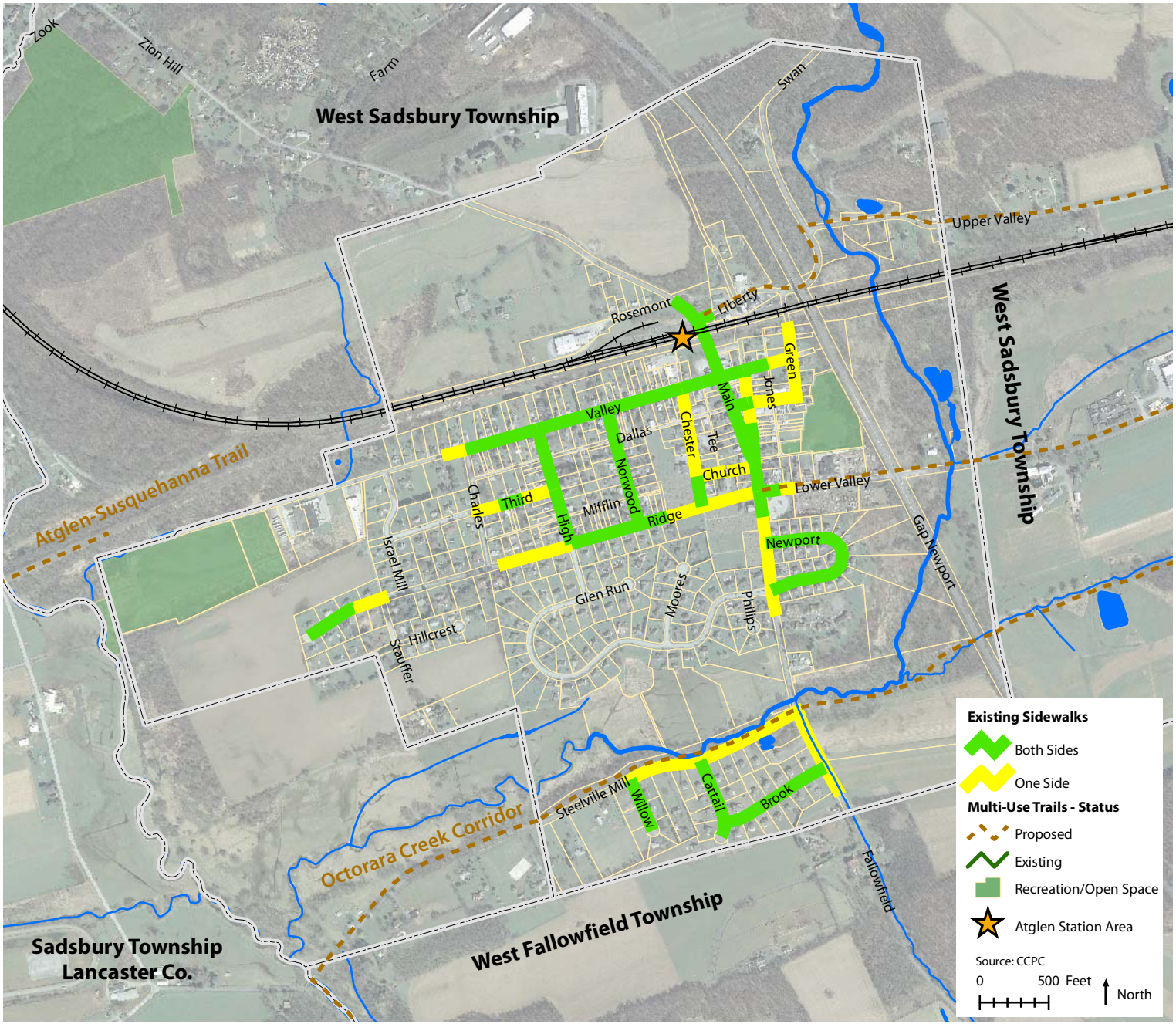
Existing and proposed bicycle and pedestrian facilities are displayed in **Figure 8**. Sidewalks are generally prevalent within Atglen Borough and connect to the station site along Zion Hill Road. Atglen Borough's zoning and subdivision and land development ordinances require sidewalks within residential, commercial, and institutional land developments. The closest existing trails in proximity to the station site are located in Wolf's Hollow County Park in West Fallowfield Township.

The Octorara Regional Comprehensive Plan (Chester County) identifies four proposed multi-use corridors: Upper Valley Road, PA 372/Lower Valley Road, Steelville Road/Valley Creek, and a corridor following the Octoraro Creek. These trail corridors are consistent with Chester County's Linking Landscapes plan, which identifies the Chester Valley and Octoraro corridors as regional recreation corridors.

Lancaster County's Open Space and Recreation plan, Greenspaces, identifies the former Atglen & Susquehanna (Low Grade) rail corridor as a proposed trail connecting to Atglen Borough.

Figure 8: Sidewalks, Multi-use Trails, and Recreation Resources: Existing and Proposed

Source: Chester County Planning Commission, 2011.



Demographics

This section of the report examines population, housing, and socio-economic demographic characteristics in Atglen and surrounding municipalities.

Population Trends:

Analyzing past population trends provides an understanding of the amount of growth a community has experienced and when this growth has occurred. This information, in turn, can provide insight into development patterns, housing types and changes in land use, which are part of the community's character. **Figure 9** shows the population trends for Atglen, the Study Area, and Chester and Lancaster counties from 1980 to 2010.

Figure 9: Population Trends, Atglen and Study Area

Municipality	1980	1990	2000	2010	% Change 1980-2010	% Change 2000-2010
Atglen	669	825	1,217	1,406	110.2	15.5
Study Area	32,373	37,648	42,142	47,715	47.4	13.2
Chester County	316,660	376,396	433,501	489,886	54.7	15.1
Lancaster County	362,346	422,822	470,658	519,445	43.4	10.4

Source: U.S. Census Bureau

Population Projections:

Population projections are forecasts of the future population which extend population trends into the future. Population projections anticipate future growth and are important for determining and planning for projects such as this feasibility study. Projections created by DVRPC and Lancaster County Planning Commission (LCPC) were used to generate a range of populations for Atglen and the Study Area to the year 2030, as shown in **Figure 10**.

Figure 10: Population Projections (2010-2030)

Municipality	2000 Population (Actual)	ACS 05-09 Population	2010 Population (Actual)	2010 Population Projection	2020 Population Projection	2030 Population Projection
Atglen	1,217	1,130	1,406	1,443	1,614	1,766
Study Area	42,142	45,636	47,715	47,554	52,398	56,824
Chester County	433,501	486,301	489,886	505,095	557,623	605,271
Lancaster County	470,658	498,918	519,445	509,720	548,979	585,489

Source: U.S. Census Bureau, 2011; Delaware Valley Regional Planning Commission, 2007; Lancaster County Planning Commission, 2002

Housing Type:

Figure 11 shows the types of housing units in Atglen Borough and provides a comparison to the surrounding municipalities and counties. The Study Area has a higher percentage of single-family detached units and mobile homes/other and a lower percentage of single-family attached units and multi-family units in comparison to Atglen and the two counties.

Figure 11: Housing Type, Atglen and Study Area

Municipality	Housing Units	Single-Family Detached		Single-Family Attached*		Multi-Family Units**		Mobile Homes & Other	
		#	%	#	%	#	%	#	%
Atglen	422	272	64.4	64	15.2	86	20.4	0	0.0
Study Area	15,210	11,243	73.9	1,317	8.7	1,145	7.5	1,505	9.9
Chester County	183,168	114,017	62.2	30,735	16.8	33,196	18.1	5,220	2.9
Lancaster County	193,957	110,147	56.8	37,979	19.6	36,948	19.0	8,883	4.6

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

* Includes twins and townhouses, ** Includes all other attached housing.

Housing Occupancy and Tenure:

Housing occupancy and tenure (**Figure 12**) shows the proportion of ownership-occupied housing and renter-occupied housing. Tenure is used to help examine whether there is housing ownership diversity in a community. Vacancy rates indicate the percentage of housing units that are vacant, and are used to examine stability and housing demand in a municipality.

The ACS estimates show that the Study Area has 15,210 housing units. Of these units, 14,580 (95.9 percent) were occupied and 630 (4.1 percent) were vacant. Of the occupied units, 81 percent were owner-occupied and 19 percent were renter-occupied. The Study Area's owner-occupancy rates are higher than rates in Atglen and the two counties, while renter-occupancy is lower.

The vacancy rate for the Study Area measures-up well with the two counties' rates. Having some properties vacant is desirable as it allows mobility and housing choice within the community. The optimum vacancy rate for the Philadelphia area, as established by the Delaware Valley Regional Planning Commission, is 4 percent. The Study Area's vacancy rate is only slightly above optimum levels and does not indicate a problem in the local housing market.

Figure 12: Housing Occupancy and Tenure, Atglen and Study Area

Municipality	Housing Units	Occupied Units		Vacant Units		Owner- Occupied Units		Renter- Occupied Units	
		#	%	#	%	#	%	#	%
Atglen	422	396	93.8	26	6.2	293	74.0	103	26.0
Study Area	15,210	14,580	95.9	630	4.1	11,805	81.0	2,775	19.0
Chester County	183,168	175,312	95.7	7,856	4.3	137,104	78.2	38,208	21.8
Lancaster County	193,957	186,301	96.1	7,656	3.9	131,410	70.5	54,891	29.5

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

Vehicles Available Per Household:

Figure 13 shows the amount of persons in Atglen and the Study Area with vehicles available within each household. The Study Area reported a higher percentage of households without access to a vehicle in comparison to Lancaster or Chester counties. The percentage of zero-car households was much higher in the Lancaster County portion of the Study Area (24%) than the Chester County portion (6%), which is likely explained by the concentration of Plain Sect families.

Figure 13: Vehicles Available Per Household, Atglen and Study Area

Municipality	No Vehicles		One Vehicle		Two + Vehicles	
	#	%	#	%	#	%
Atglen	21	5.3	104	26.3	271	68.4
Study Area	2,204	15.1	3,048	20.9	9,328	64.0
Chester County	8,073	4.6	46,634	26.6	120,605	68.8
Lancaster County	17,355	9.3	54,780	29.4	114,166	61.3

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

Figure 14: Income Levels, Atglen and Study Area

Municipality	Median Household Income	Percent Below Poverty Level	Percent Unemployed
Atglen	$63,889	11.8	11.6
Highland	$60,298	11.4	3.1
Parkesburg	$61,574	7.7	2.2
Sadsbury	$75,610	2.6	2.3
West Caln	$75,219	3.6	4.7
West Fallowfield	$56,778	30.9	4.2
West Sadsbury	$60,982	2.5	3.5
Chester County	$83,759	6.2	3.2
Bart	$60,114	6.7	2.0
Christiana	$44,306	12.9	2.3
Paradise	$52,820	5.6	2.2
Sadsbury	$56,583	14.2	1.3
Salisbury	$59,758	7.3	2.0
Lancaster County	$54,893	9.0	3.3

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

Income Levels

Figure 14 presents information on income and poverty levels, as well as unemployment within Atglen, the Study Area and Chester and Lancaster Counties. This information assists in reflecting the Study Area's affluence and financial stability.

The median household income for the Study Area municipalities within Chester County are greater than the Study Area municipalities within Lancaster County. Chester County as a whole has the highest median household income of any county in Pennsylvania. Additionally, the poverty levels within the Study Area range from 2.5 to 30.9. Chester County has both the lowest and highest levels of poverty within the Study Area's municipalities (West Sadsbury and West Fallowfield, respectfully).

Figure 15: Highest Education Levels by Percent, Atglen and Study Area

Education Level	Atglen	Study Area	Chester	Lancaster
Less Than high School	14.6	23.9	7.9	18.1
High School	40.2	40.2	24.8	39.0
Some College/Associate Degree	20.5	18.0	20.4	19.6
Bachelor's Degree	16.8	11.8	28.7	15.6
Graduate/Professional Degree	7.9	5.4	18.1	7.6

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

Education Attainment

Analyzing the level of education attained by municipal residents helps to predict employment demand and can be related to the economic prosperity of the persons in the municipality. **Figure 15** shows the educational levels of persons in Atglen and the Study Area. Generally, the Study Area population has less educational attainment than the countywide populations of Chester or Lancaster counties.

Journey to Work Characteristics

The American Community Survey (and the 2000 US Census) collects data on residents' journey (or commute) to work. This trip is of primary interest for transportation planning purposes due to the predominant influence on the traditional morning and evening peak hours.

Means of Transportation

Similar to national trends, driving alone was the predominant mode of transportation for working residents of the Study Area, as displayed in **Figure 16**. However, the travel characteristics of the Study Area did reveal two anomalies in comparison to the countywide trends: first, the Study Area reported lower percentage of commuters driving alone; and subsequently, higher percentages of carpooling and working from home. Existing railroad ridership for the Study Area was estimated as 107 commuters or one percent of all commuters.

Place of Work

Figure 17 displays the place of work for residents that lived in the Study Area. The map reveals predominant concentrations of workers: first, also working within the Study Area, and secondly, working along the US 30/Amtrak Keystone Corridor/SEPTA Paoli-Thorndale line.

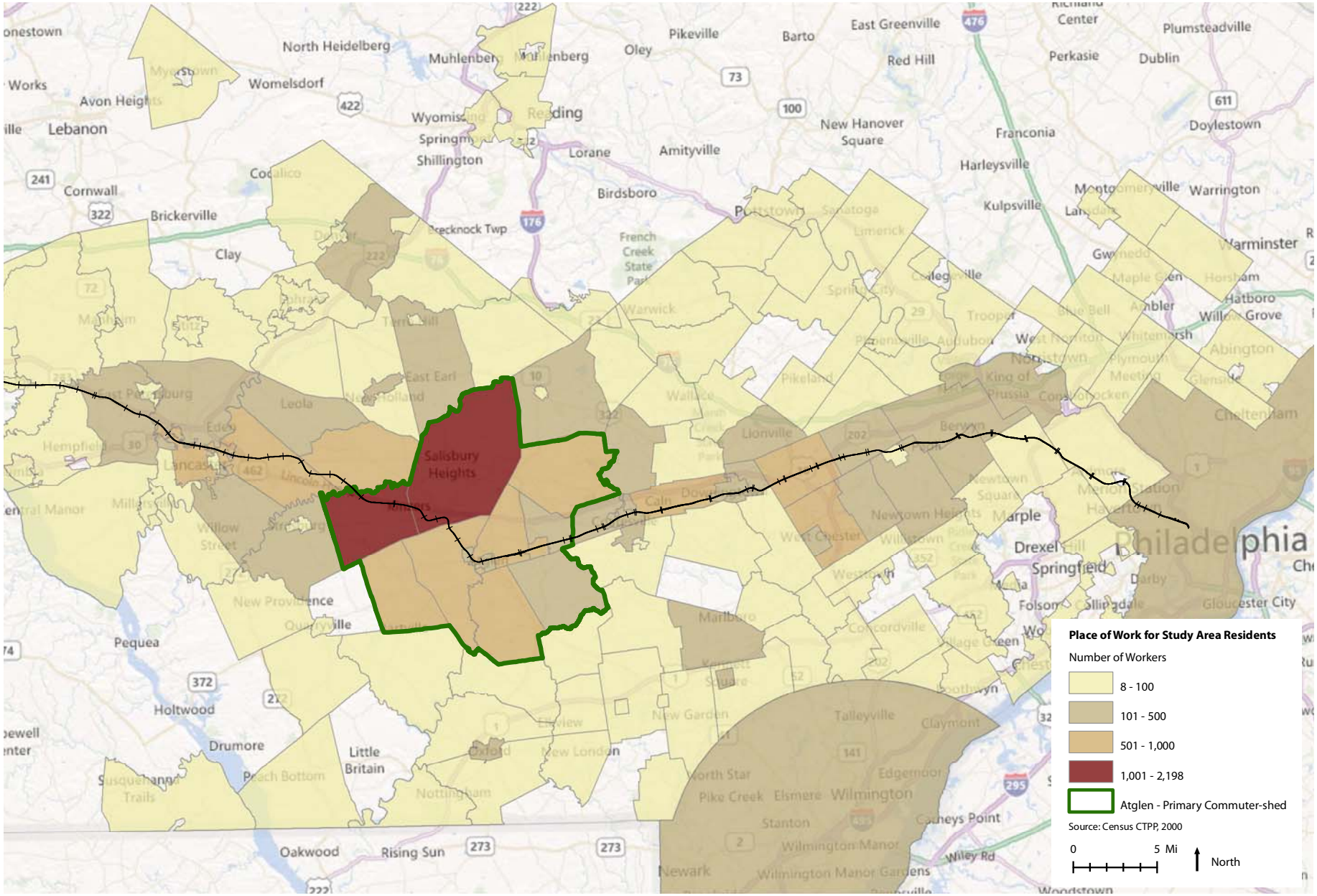
With the interest of potential ridership traveling east, approximately 29% of Study Area residents worked within municipalities that intersected the extension of the Paoli Thorndale line. This finding supports that the Paoli-Thorndale line runs concurrent to commute patterns for a significant percentage of the Study Area. It should be noted, however, that "last mile" connections between the train stations and the employment destinations would need to be improved to fully capture this potential.

Figure 16: Means of Transportation to Work

Mode	Atglen		Study Area		Chester County		Lancaster County	
	#	%	#	%	#	%	#	%
Total	**518**	**100%**	**20,699**	**100%**	**244,160**	**100%**	**241,097**	**100%**
Drove Alone	424	82%	14,570	70%	198,004	81%	189,760	79%
Carpooled	40	8%	3,121	15%	18,740	8%	23,222	10%
Railroad	0	0%	107	1%	4,261	2%	450	0%
Bus or trolley bus	10	2%	132	1%	1,724	1%	2,389	1%
Other Transit	0	0%	51	0%	448	0%	133	0%
Bicycle and Walked	26	5%	702	3%	6,247	3%	10,293	4%
Worked at Home	15	3%	1,547	7%	12,653	5%	11,933	5%
Other Means	3	1%	469	2%	2,083	1%	2,917	1%
Average Travel Time (min)	**32.2**	**n/a**	**27.8**	**n/a**	**27.8**	**n/a**	**21.9**	**n/a**

Source: U.S. Census Bureau, American Community Survey Estimates (2005-2009)

Figure 17: Place of Work



Station Site Profile

This section provides an overview and analysis of the current land use patterns in Atglen Borough with a focus on the area near the proposed station site. Brief summaries and mapping of Atglen's zoning, environmental, recreational, and historic resource information in the vicinity of the proposed station site are also included in this section.

Proposed Station Site

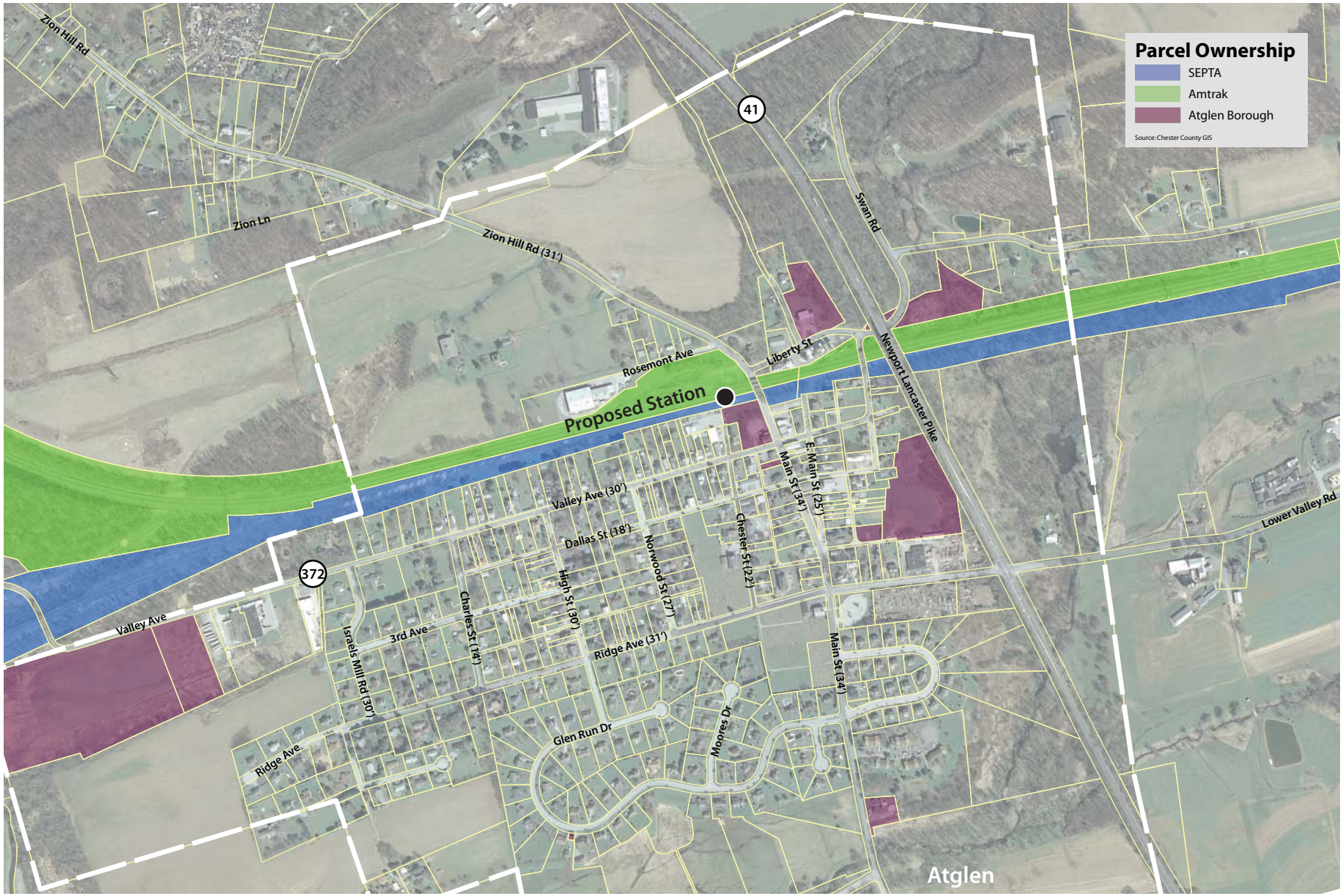
As shown in **Figure 18**, the proposed train station site is located in the area west of Main Street between Rosemont Avenue and Valley Avenue. The station site consists of several parcels with differing ownership on both the north side and south side of the Amtrak line. The parcel north of the tracks, which is categorized as transportation, is owned by Amtrak and is 3.5 acres (154,000 square feet). South of the active railroad tracks, the station site includes two parcels: the SEPTA-owned former Atglen & Susquehanna right-of-way (approximately 52,000 square feet) and portions of the Borough-owned parcel (approximately 50,000 square feet).

North of the railroad tracks, looking west

South of the railroad tracks, looking south

South of the railroad tracks, looking west

Figure 18: Proposed Station Site



Existing Land Use

Atglen Borough has a diverse land use composition containing a variety of uses and development patterns. In the central and western areas, the development pattern is predominately urban with high-to-medium densities. To the south of Ridge Avenue, more suburbanized medium and lower density development has occurred. Except for limited commercial and industrial uses scattered throughout the Borough, the developed areas remain primarily residential.

In 2001, Atglen received County funds to revitalize Main Street with improvements to the streetscape. Main Street from the railroad tracks to Ridge Avenue is the Borough's main core or business district. Smaller scale commercial businesses and institutional uses exist along this corridor, as well as other locations within the Borough. Concentrations of industrial uses are located just north of the railroad parcels and along Valley Avenue. A large concentration of vacant land is also located within the Borough.

Figures 19 & 20 describe the existing land use distribution as of 2011. The highest land use total within the radius are residential uses, which are dominated by single family houses. The residential uses are located due north and east of the station site, as well as south of the railroad parcels. Light industrial uses are located west and east of the station site. The majority of Atglen's business district falls within the radius to the south.

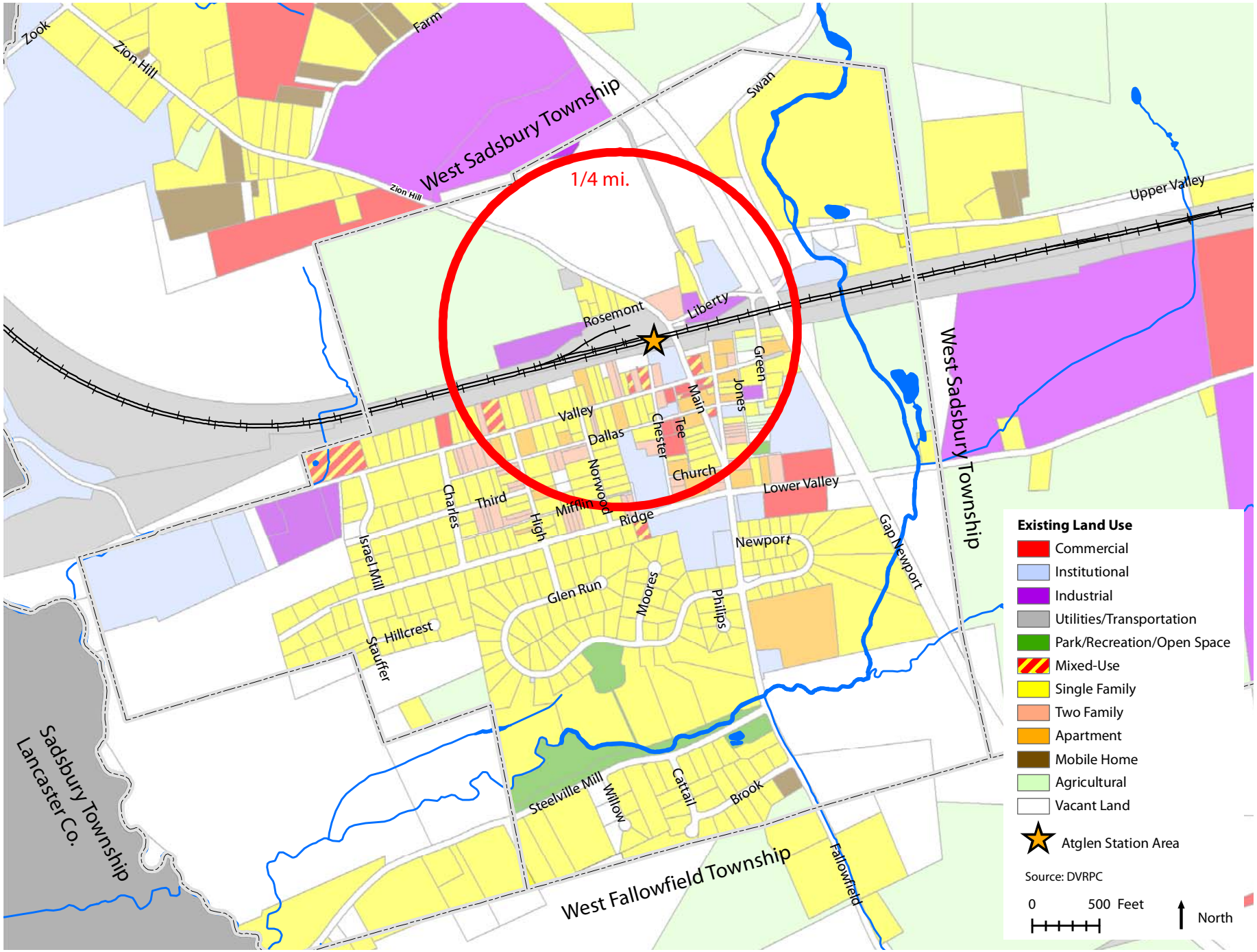
Figure 19: Existing Land Use Inventory for Atglen Borough

Land Use Categories	Acres	Percent of Total
Residential:	223.7	39.6
Single Family	198.6	35.2
Two Family	10.3	1.8
Apartment	14.2	2.5
Mobile Home	0.6	0.1
Commercial	6.0	1.1
Institutional	37.1	6.6
Industrial	10.3	1.8
Parks/Recreation/Open Space	11.0	1.9
Utilities/Transportation *	75.5	13.4
Mixed Use	4.9	0.9
Agricultural	66.3	11.7
Vacant Land	129.8	23.0
Total	**564.6**	**100**

Source: Delaware Valley Regional Planning Commission, 2010.

*includes road rights-of-way in total

Figure 20: Existing Land Use Inventory for Atglen



Existing Zoning

Atglen's zoning ordinance was adopted November 2001 and has since been updated by three amendments in 2004, 2005, and 2006. The Borough contains a total of eight zoning districts, which includes: four residential districts, one residential/conservation district, one residential/commercial district, one commercial/industrial district and one institutional district. The zoning also contains flood hazard, wetland/hydric soils, and scenic overlay districts that have little to no impact on the station site.

West Sadsbury Township also contains a total of eight zoning districts, five of which are located adjacent to Atglen Borough. The adjacent zoning districts bordering Atglen include: two residential districts, one rural district, one industrial district and one institutional/commercial district. The zoning districts of both Atglen and West Sadsbury are shown in **Figure 22**.

The station site is located within the "B-Business" zoning district. The area surrounding the station site is zoned for both residential and commercial districts. While the station site is zoned for business use, there is no permitted use within the district allowing for a train station. Adjacent districts, such as "CC-Civic Center" and "TNC-Traditional Neighborhood Core" allow for a train station.

To give a generalized idea of the types of uses and densities permitted by zoning within ¼ mile radius of the station site, the uses and area/bulk requirements of each district are summarized in **Figure 21**.

Figure 21: Atglen Zoning Districts: Area/Bulk Requirements

Zoning District	Uses Permitted by Right	Min. Lot Size
B- Business	Variety of Commercial, Industrial, Institutional, & Recreational	Article 16
CC- Civic Center	Variety of Municipal, Public, & Service Uses	5,000 square feet
	Transit Stops/Station	5,000 square feet
	Accessory Building Uses: Located within same lot as above uses	Article 16
CR- Conservation Residential	Single Family Detached	1 acre
	Public Parks/Recreation Areas	Article 16
	Nature Preserves	Article 16
	Agricultural Uses	1 Acre
	Accessory Building Uses: Located within same lot as above uses	Article 16
R-1- Single Family Residential	Single Family Detached	20,000 square feet
	Agricultural Uses	10 Acres
	Public Parks/Recreation Areas	Article 16
	Accessory Building Uses: Located within same lot as above uses	Article 16
R-3- Traditional Neighborhood/ Single Family Residential	Single Family Detached[1]	10,000 square feet
	Public Parks/Recreation Areas	15,000 square feet
	Municipal Facilities/Uses	15,000 square feet
	Accessory Building Uses: Located within same lot as above uses	Article 16
R-4- Traditional Neighborhood Residential	Single Family Detached[2]	8,000 square feet
	Single Family Semi-detached[3]	6,000 square feet
	Public Parks/Recreation Areas	Article 16
	Municipal Facilities/Uses	Article 16
	Accessory Building Uses: Located within same lot as above uses	Article 16
TNC- Traditional Neighborhood Core	Single Family Detached[4]	5,000 square feet
	Single Family Semi-detached[5]	3,000 square feet
	Single Family Attached (Article 16)[6]	2,500 square feet
	Multi-family (Article 16)[7]	9,000 lot area/ building
	Conversion Apartment (Article 16)	5,000 square feet
	Municipal Facilities/Uses	2,500 square feet
	Variety of Retail, Office, & Service Uses	N/A (Article 16)
	Mixed Use Buildings	2,500 square feet
	Transit Station	2,500 square feet

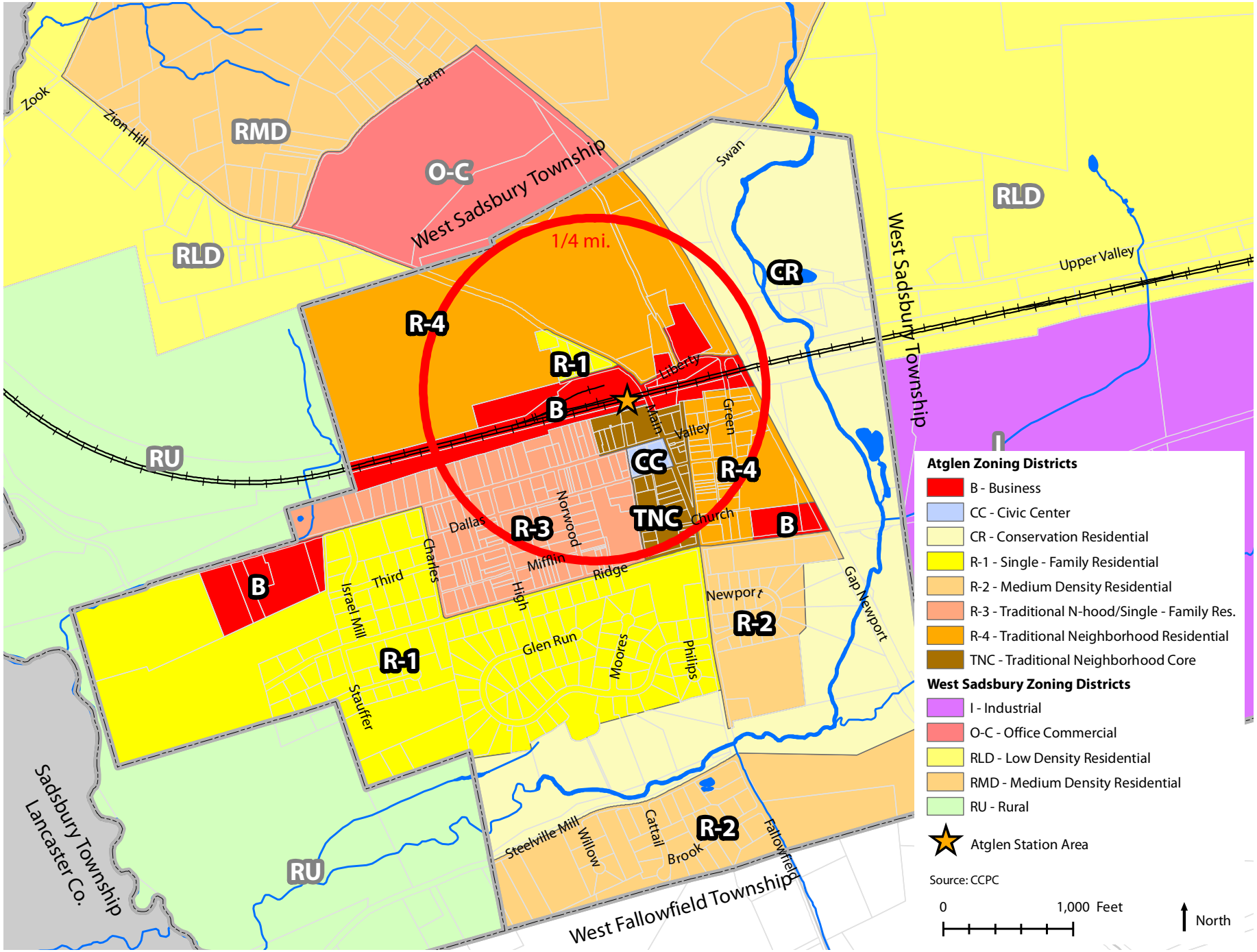
Source: Atglen Borough Zoning Ordinance with amendments, 2006

(1) Max. density 4 units/acre, (2) Max density 5 units/acre, (3) Max. density 6 units/acre, (4) Max. density 8 units/acre,

(5) Max. density 10 units/acre, (6) Max. density 4 units or 100 ft. in length, (7) Max. density 8 units/building or 95 ft. in length.

Figure 22: Existing Zoning for Atglen Borough and West Sadsbury Township

Source: Chester County Planning Commission, 2011.



Existing parking lot behind Borough Hall

Existing Parking

There are few existing parking lots within Atglen Borough. Public parking is available at Atglen Borough Hall, which has a 17-space surface lot adjacent to the building. Borough officials noted that it is important to retain at least this number of spaces to satisfy the institutional parking demand for Borough Hall. A small, privately-owned surface lot exists along the east side of Main Street immediately south of the railroad right-of-way. On street parking is provided along portions of Main Street and on Valley Avenue west of Main Street.

Given the limitation of existing parking facilities within the station area, dedicated parking to meet the needs of the proposed train station will need to be identified as part of this effort. An estimate for future parking demand related to the station is provided in **Chapter 4.**

Development Potential

Atglen Borough has multiple properties located within the quarter mile radius owned by a private developer, the Borough and two private landowners that have excellent development potential due to the proximity to the station site. Several properties to the north of the station area along Zion Hill Road have the potential for transit-oriented or transit-related development.

Environmental/Historic/Recreation Resource Profile

A full profile of environmental, historic, and recreational resources in Atglen Borough and the station site was completed and found that the site does not contain significant environmental resources. The full profile of environmental resources is discussed below.

Biotic Resources

Biotic resources include plants, animals, and ecosystems such as forests and wetlands. Street trees and vegetated public lands are also a form of biotic resources which add to the quality of life in the Borough and can significantly improve real estate values for Borough residents. **Figure 23** illustrates four different biotic resources: Biodiversity Corridors, Forested Lands, Pennsylvania Natural Diversity Inventory (PNDI) sites, and Wetlands. None of the four biotic resources impacts the station site.

Land Resources

Land resources include underlying geology, the topography which is shaped by the natural weathering process, the soils which form at the surface and land development/protective lands. These resources are typically important when developing a concept plan, but in this case these resources do not impact planning for the proposed station site. **Figures 24-27** illustrate land resources in Atglen.

Figure 23: Biotic Resources for Atglen

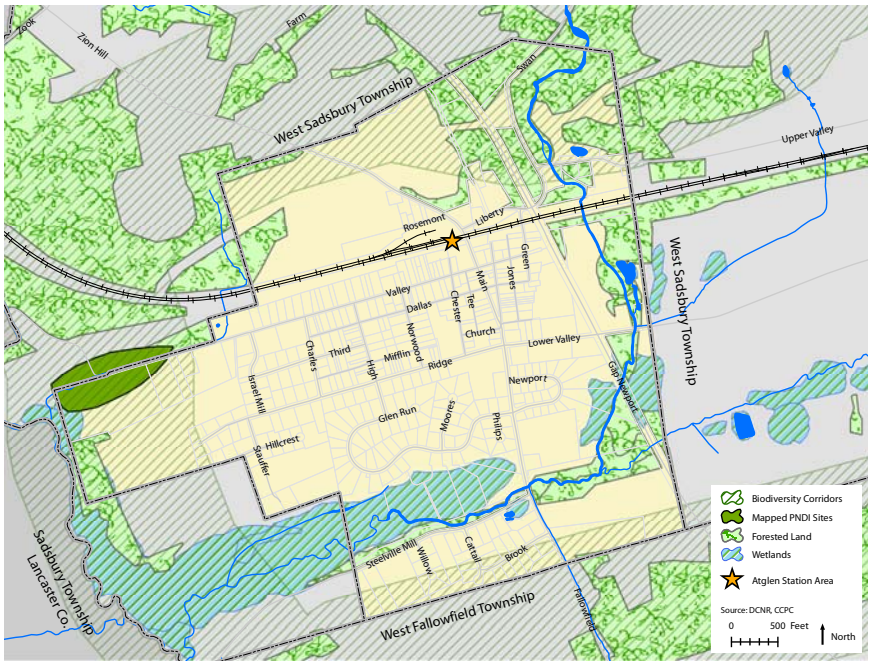


Figure 24: Atglen Geology

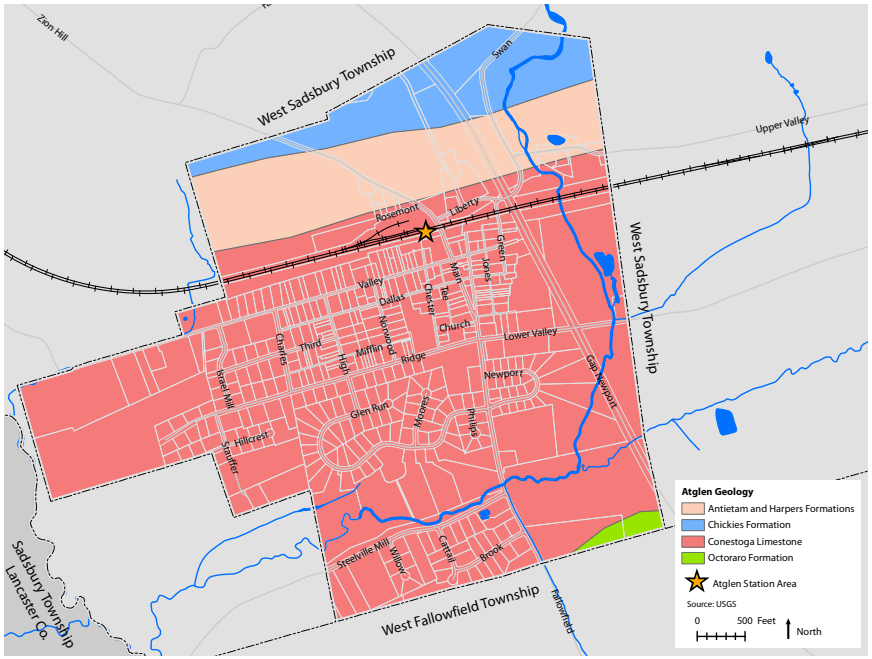


Figure 25: Atglen Steep Slopes

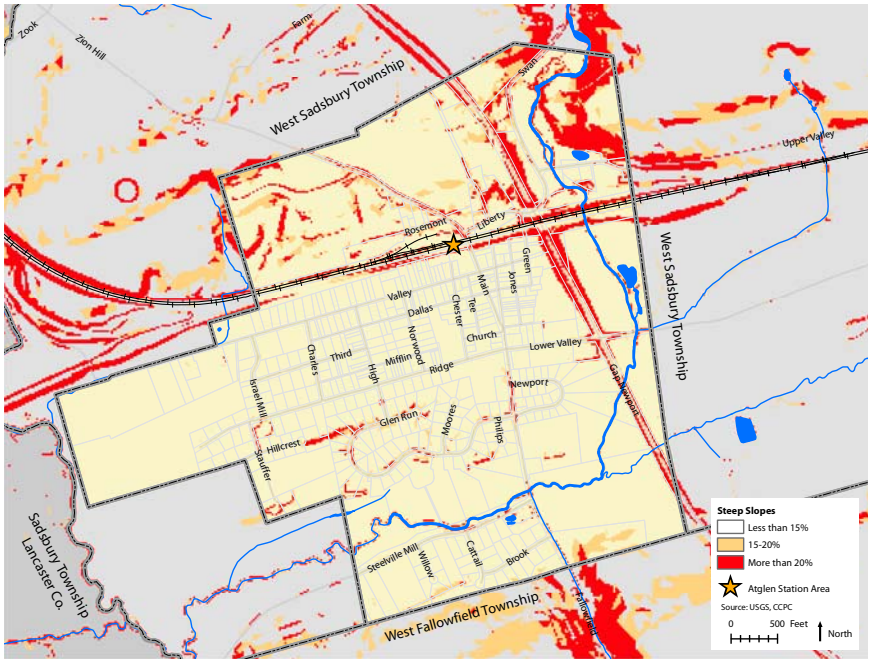


Figure 26: Atglen Soils

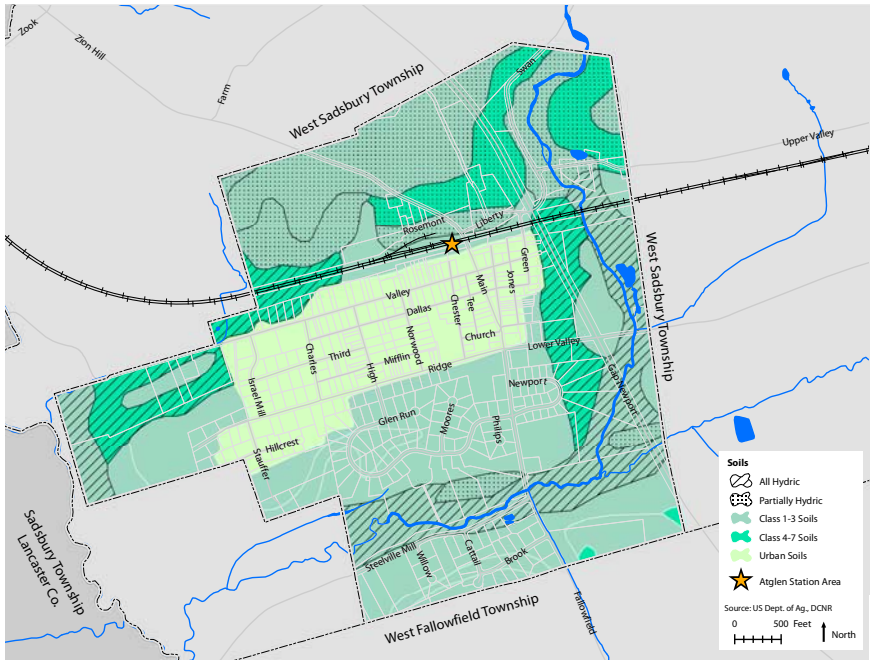
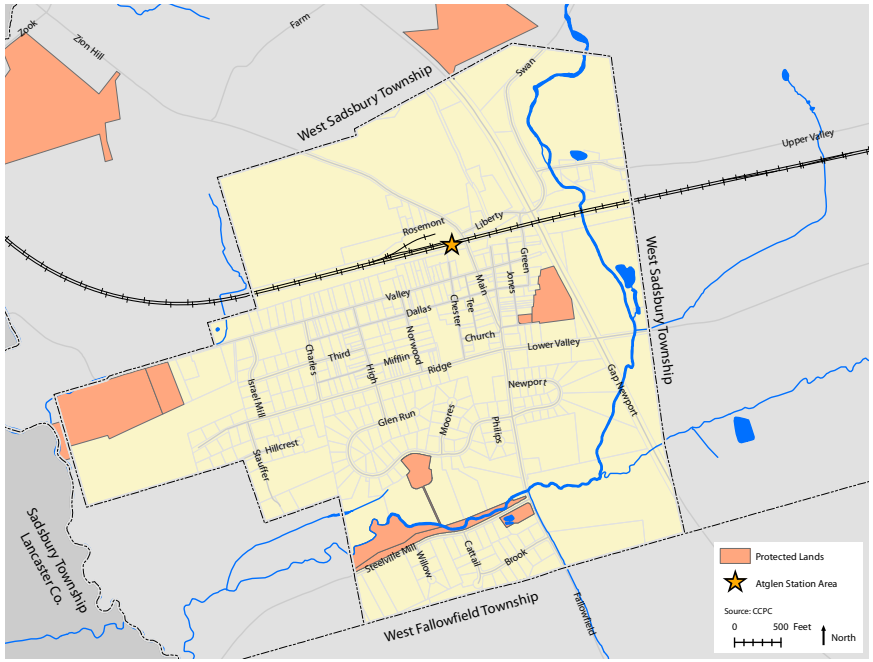


Figure 27: Atglen Protected Lands



Hydrologic Resources

Water resources include surface water bodies such as streams and ponds, but also include subsurface groundwater, as well as storm water runoff that crosses the surface of the land and collects in desired and undesired areas. Water resources impact wildlife and the environment and are also a major financial and public safety concern. Insufficiently managed storm water runoff can result in erosion that can cause property damage; improperly maintained headwaters and floodplains can result in increased flood damage; and degraded surface and groundwater quality can drive up drinking water costs. The entire Borough is within the Susquehanna River Basin, which consists of the Octoraro Creek Watershed. The Borough is divided by three minor watersheds: Buck Run, Officers Run, and Valley Creek. **Figure 28** illustrates the water resources located within Atglen, but no hydrologic resources impact the station site.

Historic & Cultural Resources

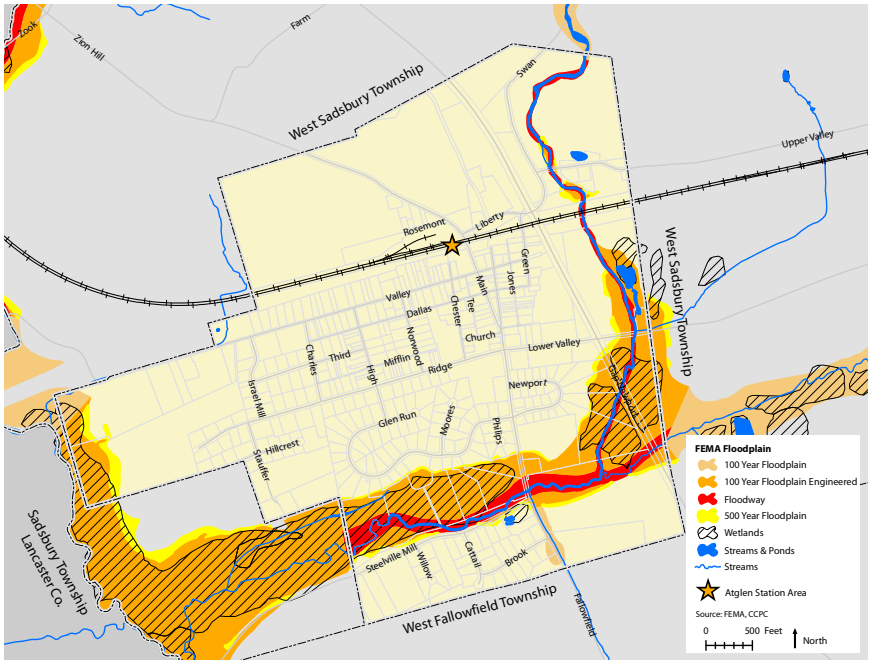
Historic preservation is an important element in the planning process because it protects and retains historic resources and provides an understanding of a community's past. Atglen has many structures located south of the railroad that are designated historic sites, however, the proposed station site does not include of any historic resources.

In 2010-2011, Amtrak will be replacing the historic catenary lines along the old Atglen & Susquehanna Branch right-of-way with new transmission lines funded from the America's Recovery and Reinvestment Act (ARRA). From this upgrade various historic markers and/or kiosks will be erected along this corridor telling the story of the old Atglen & Susquehanna Branch freight line. One such kiosk is to be set in Atglen Borough at the proposed station site where the old freight line was once located.

Recreation Resources

Recreation resources include parks, trails, paths, and bike routes. All of these features should come together to create an interconnected network which extends throughout the Borough. Linking residential areas and the central business district with recreation facilities can improve the economy and quality-of-life within the Borough. Recreation facilities are also recognized by the medical community as tools for reversing the nationally-recognized epidemic of overweight and obesity, including childhood obesity. Recreation resources are shown on **Figure 20** of this report.

Figure 28: Water Resources for Atglen



Ridership & Parking Analysis

Updated SEPTA Ridership Estimates

DVRPC's 2007 study developed a comparative, straight-line forecast methodology to estimate year 2020 ridership for the three stations along the Paoli-Thorndale Extension (Parkesburg, Coatesville, and Atglen). Fundamentally, DVRPC used the characteristics of four stations in the central portion of Chester County (Thorndale, Downingtown, Whitford, and Exton) to estimate ridership for the service extension. This methodology utilized the data inputs as displayed in **Figure 29**. Based on these parameters, DVRPC's 2007 method estimated 456 total trips (or 228 boardings) across the three stations for the proposed service extension to Atglen.

Given the availability of more recent data including 2010 U.S. Census data, DVRPC's forecast methodology was updated at the guidance of the Study Advisory and Technical Review Committees. One notable deviation from DVRPC's original method was the use of two separate horizon years: an opening-day horizon (2030) and a service maturation horizon (2040) for the purpose of estimating parking needs. The estimated ridership for 2020 was also calculated as a basis of comparison to DVRPC's original estimates. Additionally, since 2005, DVRPC refined their methodology for delineating rail station commute-sheds; this refined method was used in the updated ridership calculation (see **Appendix B** for detailed methodology/calculations).

The updated ridership estimate produced significantly more riders for the service extension to Atglen. Opening day ridership in 2030 was estimated at 1,224 trips per day, while year 2040 ridership was estimated at 1,314 trips per day.

Figure 29: Estimated SEPTA Ridership for Extension and Data Sources

	Original Estimate (2007)		Updated Estimate (2012)	
Input	**Year**	**Source**	**Year**	**Source**
Population	2000	U.S. Census, 2000	2010	U.S. Census, 2000
Horizon-year population	2020	DVRPC/Lancaster County, 2002	2030/2040	DVRPC/Lancaster County, 2012
SEPTA boardings	2005	SEPTA, 2005	2011	SEPTA, 2011
License plate surveys	2005	DVRPC, 2005	2011	CCPC, 2011
Orientation of work trips to Philadelphia	2000	U.S. Census, 2000	2000	U.S. Census, 2000
Estimated Trips	2020	456 trips	2020	1,082 trips
	2030	Not Calculated	2030	1,224 trips
	2040	Not Calculated	2040	1,314 trips

Parking Demand Estimate

The parking needs for the Atglen station were derived by evaluating the future parking needs for both SEPTA and Amtrak services (if applicable) at the Coatesville, Parkesburg, and Atglen stations. Additionally, the parking analysis considered the PennDOT-led preliminary station improvement plans for Coatesville and Parkesburg stations, which are being advanced concurrently with this technical effort.

At the guidance of the Technical Review Committee, the parking needs of SEPTA and Amtrak were determined by separate methods. SEPTA parking demand was calculated by applying a rider-to-parking space ratio of 62 percent to the estimated ridership for each horizon year. This ratio was derived from observed parking utilization and ridership at Thorndale, Downingtown, Whitford, and Exton stations. Parking demand for Amtrak — 100 spaces at both Coatesville and Parkesburg — was determined at the direction of PennDOT. Pending growth in Amtrak ridership, some of these 200 parking spaces may be able to accommodate SEPTA riders, especially in the 2020 and 2030 horizons. As displayed in **Figure 30**, this analysis estimated the need for 579 parking spaces among the three stations in 2030 and 607 parking spaces in 2040.

The parking demand was assessed in comparison to the improvement plans for the Coatesville, Parkesburg, and Atglen stations. Each of the design stations include multiple potential phases for parking; therefore, the initial phase of parking was used for the 2030 horizon, while the 2040 horizon assumed additional parking phases.

Figure 30: Parking Demand Analysis at Coatesville, Parkesburg, and Atglen stations

Horizon	2020	2030	2040	Notes
Parking Spaces Needed				
SEPTA Trips - Projected	1,082	1,224	1,314	
SEPTA Boardings - Projected	541	612	657	
Rider-to-parking space ratio:	62%	62%	62%	2011 SEPTA Parking utilization/2011 ridership figures
Subtotal - SEPTA spaces needed	*335*	*379*	*407*	
Subtotal - Amtrak spaces needed	*200*	*200*	*200*	*Based on PennDOT guidance of 100 spaces per Amtrak station*
Total Spaces - Needed	**535**	**579**	**607**	
Parking Spaces Planned				
Coatesville	145	145	200	Estimate based on most current concept ; 2040 parking assumes future improvements
Parkesburg	164	164	200	Estimate based on most current concept ; 2040 parking assumes future improvements
Atglen	120	120	160	Estimate reflects anticipated station concept
Total Spaces - Planned	**429**	**429**	**560**	

Rail Operations Analysis

Existing Park Interlocking

Existing A&S track bed just west of Park Interlocking

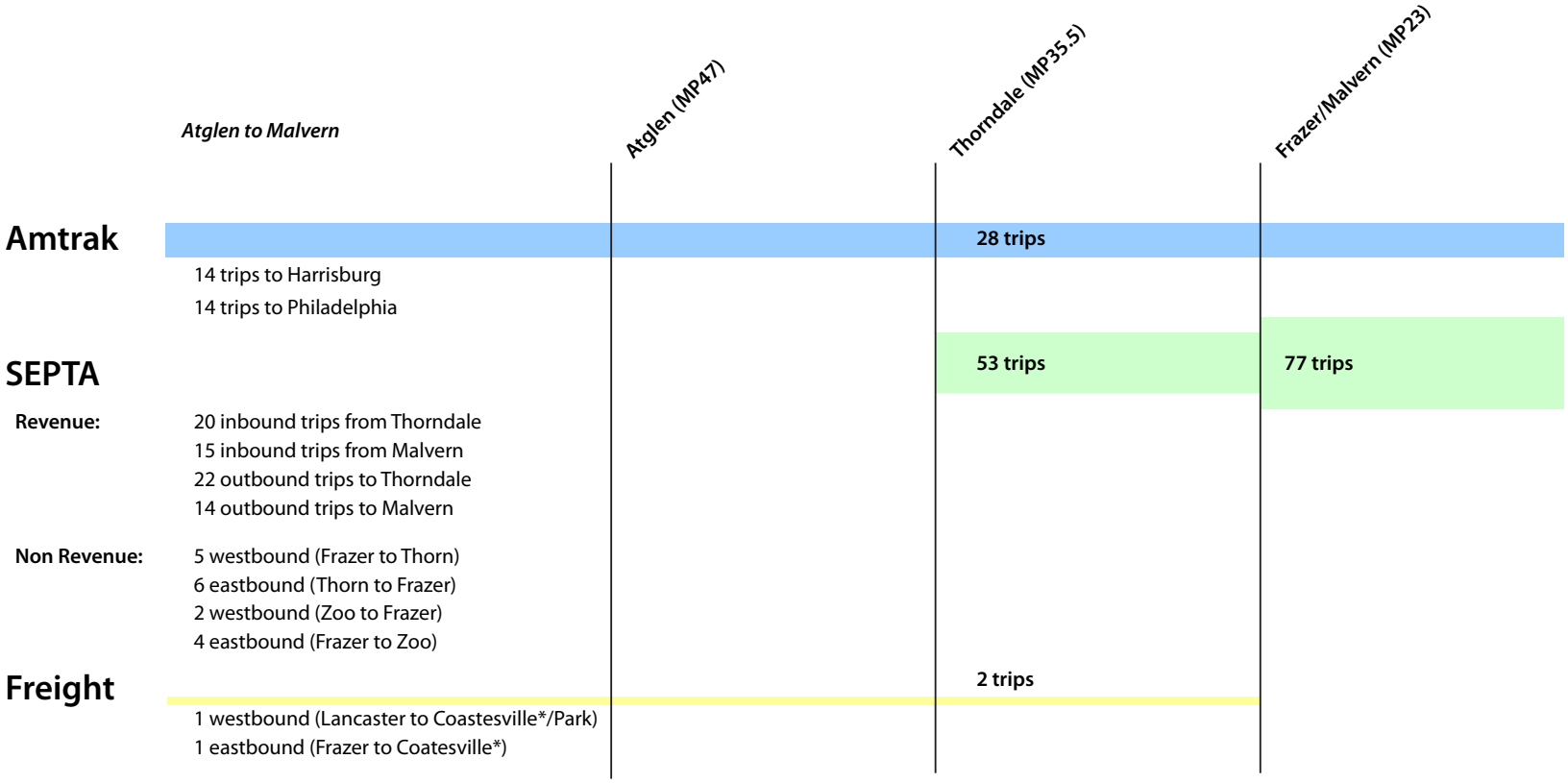
Current Rail Operations

Service along SEPTA's Paoli-Thorndale regional rail line currently terminates approximately 12 miles to the east of Atglen at Thorndale Station, while Amtrak's Keystone Service passes through but does not stop in Atglen. Current scheduled weekday rail service on Amtrak's Keystone Service in the immediate Atglen station area consists of 28 Amtrak revenue trains (14 in each direction between Harrisburg and Philadelphia) and on average one daily freight train between Lancaster and Coatesville (Mittal Steel) or Parkesburg (Parkesburg Industrial Siding). A second daily freight train, which would factor into operations for the Paoli-Thorndale Extension (but not Atglen), travels between Frazer interlocking (from Abrams Yard via Norfolk Southern's Dale Secondary) to Norfolk Southern's Wilmington and Northern line at MP 39.2. **Figure 31** displays the estimated weekday operations on the Keystone Service between Atglen and Frazer.

Existing Rail Configuration

The existing rail configuration through the Atglen area is a two track operation with a one-way directional signal system. Amtrak is currently working on a capital project to update the signalization to bi-directional operation. The closest interlocking to the east of the station site (MP 47) is the newly constructed Park Interlocking (MP 46.3), a high-speed interlocking with cross-over capabilities between both main tracks. The Park interlocking was designed to accommodate a future turnout that would enable service to a south-side station location in Atglen. Immediately east of Park Interlocking is the former Park Interlocking (MP 43.9). The cross-over capabilities were retired, leaving only access to the active Parkesburg Industrial siding via a turnout from Track 1 and a rail duck under. The next interlockings to the east are Caln (MP 36.6) and Thorn (MP 35.0) at the current terminus of SEPTA rail service at the Thorndale station. To the west of the station site, the closest interlocking is the Leaman interlocking (MP 56.7) with cross-over capabilities and access to the Strasburg Railroad.

Figure 31: Average Daily Rail Trips: Amtrak Keystone Corridor/SEPTA Paoli-Thorndale Line



*- Turnout at MP 39.2 to access Norfolk Southern's Wilmington and Northern line

Source: Chester County Planning Commission, 2011

Proposed Rail Operations

An extension of SEPTA's Paoli-Thorndale regional rail service to Atglen is shown schematically in **Figure 32**. Due to its location at the end of the extension, only one platform is necessary for a new station in Atglen. The platform would need to be located on a new siding outside of the main line tracks to avoid conflicts with freight and Amtrak service. Right-of-way is limited to the north of the main line tracks, with several properties directly adjacent to the tracks. Therefore, it is proposed that passenger boarding and alighting occur from a single station platform to the south of the current main line tracks.

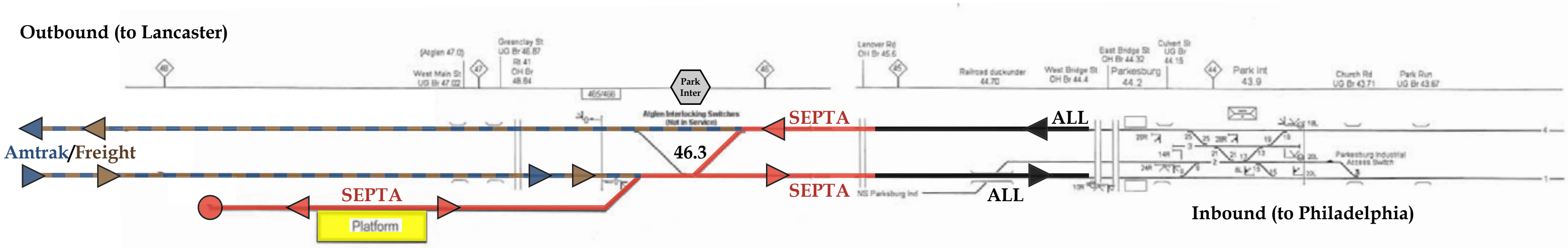
Trains approaching Atglen from Philadelphia would crossover to the eastbound track at Park Interlocking and enter a new rail siding that extends west to the south-side platform. After serving the station, these trains would then reverse direction and head back towards Philadelphia by first traveling along the new rail siding and then accessing the eastbound track at Park Interlocking.

To aid this planning study, SEPTA has developed two operating scenarios for extending Paoli Thorndale service to Coatesville, Parkesburg, and Atglen. These operating scenarios were developed in coordination with Amtrak based on existing Amtrak and SEPTA schedules as of Spring 2012. It should be noted that Amtrak, PennDOT, and SEPTA staff indicated that they anticipate significant alterations to the Keystone Service and SEPTA schedules upon completion of programmed infrastructure improvements; therefore, the schedule is considered conceptual for the purposes of rail operations planning and cost development.

The first scenario, as shown in **Figure 33** features seven (7) trips per weekday to Atglen. This schedule includes two morning eastbound trips, two late-afternoon/evening eastbound trips, and three westbound late-afternoon/evening trips.

The second scenario plans for fifteen (15) trips per weekday to Atglen. This schedule includes four morning eastbound trips, three late-afternoon/evening eastbound trips, two morning westbound trips, and six westbound late-afternoon/evening trips.

Figure 32: Proposed Rail Service Schematic



Source: Amtrak 2010 Track Diagram, 1/28/10

Figure 33: Conceptual SEPTA Schedule for Service to Atglen (Seven Trips Per Weekday)

TO CENTER CITY

Fare Zone	Services Ⓟ	Services	Services ♿	Stations / Train Number	514 AM	516 AM	5712 AM	522 AM	5714 AM	5408 AM	9524 AM	9526 AM	5728 AM	9530 AM	9534 AM	9536 AM	9508 AM	9538 AM
47.0				Atglen	—	—	—	—	6:00	—	—	—	—	—	—	—	—	7:36
44.2				Parkesburg	—	—	—	—	6:04	—	—	—	—	—	—	—	—	7:40
38.4				Coatesville	—	—	—	—	6:10	—	—	—	—	—	—	—	—	7:46
35.3	✓		✓	Thorndale	4:58	—	5:50	—	6:14	—	—	6:55	—	—	7:14	—	—	7:50
5	✓			Downingtown	5:02	—	5:54	—	6:18	—	—	6:59	—	—	7:18	—	—	7:54
5	✓			Whitford	5:08	—	6:00	—	6:24	—	—	7:05	—	—	7:24	—	—	8:00
5	✓		✓	Exton	5:10	—	6:02	—	6:26	—	—	7:08	—	—	7:26	—	—	8:02
5	✓	✓		Malvern	5:16	5:44	6:09	—	6:33	—	6:57	7:16	—	—	7:33	7:40	—	8:09
4	✓	✓		Paoli (Rt 204, 205, 206)	5:20	5:48	6:13	—	6:37	—	7:01	7:21	—	7:27	7:37	7:44	—	8:13
4	✓			Daylesford	5:22	5:50	6:15	—	6:40	—	7:03		—	7:29	7:39	7:46	—	—
4	✓	✓	✓	Berwyn	5:24	5:52	6:17	—	6:42	—	7:06	GREAT	—	7:31	7:41	7:48	—	—
4	✓	✓		Devon	5:26	5:54	6:19	—	6:45	—	7:08		—	7:33	7:43	7:50	—	—
3	✓	✓		Strafford	5:28	5:56	6:22	—	6:48	—	7:10		—	7:36	7:46	7:53	—	E
3	✓	✓	✓	Wayne	5:30	5:58	6:24	—	6:50	—	7:12		—	7:38	7:48	7:55	—	X
3	✓			St. Davids	5:32	6:00	6:26	—	6:52	—	7:14		—	7:40	—	7:57	—	P
3	✓	✓		Radnor (STN*)	5:34	6:02	6:28	—	6:54	—	7:16	VALLEY	—	7:42	E	7:59	—	R
3	✓	✓		Villanova	5:36	6:04	6:30	—	6:56	—	7:18		—	7:44	X	8:01	—	E
3	✓	✓		Rosemont	5:38	6:07	6:33	—	6:59	—	7:21		—	7:47	P	8:04	—	S
3	✓	✓		Bryn Mawr	5:40	6:10	6:36	6:43	7:01	7:08	7:25		7:35	7:49	7:54	8:06	8:10	S
2	✓	✓		Haverford	5:42	6:12	—	6:45	—	7:10	—		7:37	—	7:56	—	8:12	—
2	✓	✓		Ardmore	5:44	6:14	E	6:47	E	7:12	E		7:39	E	7:58	E	8:14	—
2	✓	✓		Wynnewood	5:46	6:17	X	6:50	X	7:15	X	FLYER	7:42	X	8:00	X	8:17	—
2	✓	✓		Narberth	5:48	6:19	P	6:52	P	7:18	P		7:44	P	8:02	P	8:19	—
2	✓	✓		Merion	5:50	6:21	—	6:54	—	7:20	—		7:46	—	8:04	—	8:21	—
2	✓	✓		Overbrook	5:52	6:23	—	6:56	—	7:23	—		7:48	—	—	8:14	8:23	—
C		✓	✓	30th Street Station	6:02	6:33	6:50	D7:06	D7:16	7:33	D7:39	D7:46	D7:58	D8:03	D8:15	D8:24	D8:33	D8:38
C		✓	✓	Suburban Station	6:07	6:38	6:55	D7:11	D7:21	7:38	D7:44	D7:51	D8:03	D8:08	D8:20	D8:29	D8:38	D8:43
C		✓	✓	Market East Station	6:12	6:43	7:00	D7:16	D7:26	7:43	D7:49	D7:56	D8:08	D8:13	D8:25	D8:34	D8:43	D8:48
C		✓	✓	Temple University	6:16	6:47	7:04	7:20	7:30	7:47	7:54	8:00	8:12	8:17	8:29	8:38	8:47	8:52
				Train continues to	DOY	LAN	CHE	—	—	WAR	—	—	—	—	—	—	—	—
				(see *Destination Codes*)	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM

Stations / Train Number	540 AM	9510 AM	542 AM	544 AM	546 AM	548 AM	550 AM	552 AM	554 AM	556 PM	558 PM	560 PM	562 PM	564 PM	5368 PM
Atglen	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Parkesburg	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Coatesville	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Thorndale	—	—	8:14	—	9:10	—	10:13	—	11:10	—	12:10	—	1:10	—	—
Downingtown	—	—	8:18	—	9:17	—	10:17	—	11:17	—	12:17	—	1:14	—	—
Whitford	—	—	8:24	—	9:22	—	10:22	—	11:22	—	12:22	—	1:19	—	—
Exton	—	—	8:26	—	9:24	—	10:24	—	11:24	—	12:24	—	1:21	—	—
Malvern	—	—	8:33	8:54	9:30	10:00	10:30	10:55	11:30	12:00	12:30	1:04	1:27	1:57	2:37
Paoli (Rt 204, 205, 206)	8:09	—	8:37	8:58	9:34	10:04	10:34	10:59	11:34	12:04	12:34	1:08	1:31	2:01	2:41
Daylesford	8:11	—	8:39	9:00	9:36	10:06	10:36	11:01	11:36	12:06	12:36	1:10	1:33	2:03	2:43
Berwyn	8:13	—	8:41	9:02	9:38	10:08	10:38	11:03	11:38	12:08	12:38	1:12	1:35	2:05	2:45
Devon	8:15	—	8:43	9:04	9:40	10:10	10:40	11:05	11:40	12:10	12:40	1:14	1:37	2:07	2:47
Strafford	8:18	—	8:46	9:06	9:42	10:12	10:42	11:07	11:42	12:12	12:42	1:16	1:39	2:09	2:49
Wayne	8:20	—	8:48	9:08	9:44	10:14	10:44	11:09	11:44	12:14	12:44	1:18	1:41	2:11	2:51
St. Davids	8:22	—	8:50	9:10	9:46	10:16	10:46	11:11	11:46	12:16	12:46	1:20	1:43	2:13	2:53
Radnor (STN*)	8:24	—	8:52	9:12	9:48	10:18	10:48	11:13	11:48	12:18	12:48	1:22	1:45	2:15	2:55
Villanova	8:26	—	8:54	9:14	9:50	10:20	10:50	11:15	11:50	12:20	12:50	1:24	1:47	2:17	2:57
Rosemont	8:29	—	8:57	9:16	9:52	10:22	10:52	11:17	11:52	12:22	12:52	1:26	1:49	2:19	2:59
Bryn Mawr	8:31	8:39	8:59	9:18	9:54	10:24	10:54	11:19	11:54	12:24	12:54	1:28	1:51	2:21	3:01
Haverford	—	8:41	—	9:20	9:56	10:26	10:56	11:21	11:56	12:26	12:56	1:30	1:53	2:23	3:03
Ardmore	E	8:43	E	9:22	9:58	10:28	10:58	11:23	11:58	12:28	12:58	1:32	1:55	2:25	3:05
Wynnewood	X	8:46	X	9:24	10:00	10:30	11:00	11:25	12:00	12:30	1:00	1:34	1:57	2:27	3:07
Narberth	P	8:48	P	9:26	10:01	10:31	11:01	11:26	12:01	12:31	1:01	1:35	1:58	2:28	3:08
Merion	—	8:50	—	9:28	10:03	10:33	11:03	11:28	12:03	12:33	1:03	1:37	2:00	2:30	3:10
Overbrook	—	8:52	—	9:30	10:05	10:35	11:05	11:30	12:05	12:35	1:05	1:39	2:02	2:32	3:12
30th Street Station	8:45	D9:02	9:13	9:40	10:15	10:45	11:15	11:40	12:15	12:45	1:15	1:49	2:12	2:42	3:22
Suburban Station	8:50	D9:07	9:18	9:45	10:20	10:50	11:20	11:45	12:20	12:50	1:20	1:54	2:17	2:47	3:27
Market East Station	8:55	D9:12	9:23	9:50	10:25	10:55	11:25	11:50	12:25	12:55	1:25	1:59	2:22	2:52	3:32
Temple University	8:59	9:16	9:27	9:54	10:29	10:59	11:29	11:54	12:29	12:59	1:29	2:03	2:26	2:56	3:36
Train continues to	LNK	—	DOY	LNK	DOY	LNK	DOY	LNK	DOY	LNK	DOY	LNK	DOY	LNK	WTR
(see *Destination Codes*)	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM	PM

Stations / Train Number	568 PM	570 PM	574 PM	578 PM	580 PM	582 PM	584 PM	586 PM	588 PM	592 PM	594 PM	596 PM	598 PM	1500 FRI ONLY
Atglen	2:29	—	—	—	—	—	—	—	6:29	—	—	—	—	—
Parkesburg	2:33	—	—	—	—	—	—	—	6:33	—	—	—	—	—
Coatesville	2:39	—	—	—	—	—	—	—	6:39	—	—	—	—	—
Thorndale	2:43	3:13	—	4:05	4:41	—	—	—	6:43	—	8:43	9:48	11:13	11:43
Downingtown	2:47	3:17	—	4:09	4:45	—	—	—	6:47	—	8:47	9:52	11:17	11:47
Whitford	2:52	3:22	—	4:14	4:50	—	—	—	6:52	—	8:52	9:57	11:22	11:52
Exton	2:54	3:24	—	4:16	4:52	—	—	→ —	6:54	—	8:54	9:59	11:24	11:54
Malvern	3:00	3:30	3:58	4:22	4:58	5:29	5:56	6:30	7:00	8:00	9:00	10:05	11:30	12:00
Paoli (Rt 204, 205, 206)	3:04	3:34	4:02	4:26	5:02	5:33	6:00	6:34	7:04	8:04	9:04	10:09	11:34	12:04
Daylesford	3:06	3:36	4:04	4:28	5:04	5:35	6:02	6:36	7:06	8:06	9:06	10:11	11:36	12:06
Berwyn	3:08	3:38	4:06	4:30	5:06	5:37	6:04	6:38	7:08	8:08	9:08	10:13	11:38	12:08
Devon	3:10	3:40	4:08	4:32	5:08	5:39	6:06	6:40	7:10	8:10	9:10	10:15	11:40	12:10
Strafford	3:12	3:42	4:10	4:35	5:11	5:42	6:09	6:42	7:12	8:12	9:12	10:17	11:42	12:12
Wayne	3:14	3:44	4:12	4:37	5:13	5:44	6:11	6:44	7:14	8:14	9:14	10:19	11:44	12:14
St. Davids	3:16	3:46	4:14	4:39	5:15	5:46	6:13	6:46	7:16	8:16	9:16	10:21	11:46	12:16
Radnor (STN*)	3:18	3:48	4:16	4:41	5:17	5:48	6:15	6:48	7:18	8:18	9:18	10:23	11:48	12:18
Villanova	3:20	3:50	4:18	4:45	5:19	5:50	6:17	6:50	7:20	8:20	9:20	10:25	11:50	12:20
Rosemont	3:22	3:52	4:20	4:47	5:21	5:53	6:19	6:52	7:22	8:22	9:22	10:27	11:52	12:22
Bryn Mawr	3:24	3:54	4:23	4:53	5:24	5:55	6:22	6:54	7:24	8:24	9:24	10:29	11:54	12:24
Haverford	3:26	3:56	4:25	4:55	5:26	5:57	6:24	6:56	7:26	8:26	9:26	10:31	11:56	12:26
Ardmore	3:28	3:58	4:27	4:57	5:28	5:59	6:26	6:58	7:28	8:28	9:28	10:33	11:58	12:28
Wynnewood	3:30	4:00	4:29	4:59	5:30	6:01	6:29	7:00	7:30	8:30	9:30	10:35	12:00	12:30
Narberth	3:31	4:01	4:31	5:01	5:32	6:03	6:31	7:01	7:31	8:31	9:31	10:36	12:01	12:31
Merion	3:33	4:03	4:33	5:03	5:34	6:05	6:33	7:03	7:33	8:33	9:33	10:38	12:03	12:33
Overbrook	3:35	4:05	4:35	5:05	5:36	6:07	6:35	7:05	7:35	8:35	9:35	10:40	12:05	12:35
30th Street Station	3:45	4:15	4:45	5:16	5:46	6:17	6:45	7:15	7:45	8:45	9:45	10:50	12:15	D12:45
Suburban Station	3:50	4:20	4:50	5:21	5:51	6:22	6:50	→ 7:20	7:50	8:50	9:50	10:55	12:20	D12:50
Market East Station	3:55	4:25	4:55	5:26	5:56	6:27	6:55	7:25	7:55	8:55	9:55	11:00	12:25	12:55
Temple University	3:59	4:29	4:59	5:31	6:00	6:31	6:59	7:29	7:59	8:59	9:59	11:04	12:29	—
Train continues to	LNK	LAN	LAN	LAN	LAN	LAN	DOY	LAN	DOY	DOY	DOY	LAN	LAN	—
(see *Destination Codes*)	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM	AM

Evening Fares Apply

SEPTA Train 1500 operates on Friday only

TO PAOLI AND THORNDALE

Fare Zone	Services Ⓟ	Services	Services ♿	Stations / Train Number	9597 AM	501 AM	503 AM	3505 AM	507 AM	509 AM	513 AM	515 AM	8517 AM	519 AM	521 AM	523 AM	525 AM	527 AM
C		✓	✓	Temple University	5:32	6:02	6:34	6:59	—	7:31	8:01	8:30	9:07	9:34	10:04	10:34	11:04	11:34
C		✓	✓	Market East Station	5:38	6:08	6:40	7:05	7:20	7:37	8:07	8:36	9:13	9:40	10:10	10:40	11:10	11:40
C		✓	✓	Suburban Station	5:43	6:13	6:45	7:10	7:25	7:42	8:12	8:41	9:18	9:45	10:15	10:45	11:15	11:45
C		✓	✓	30th Street Station	5:47	6:17	6:49	7:14	7:29	7:46	8:16	8:45	9:22	9:49	10:19	10:49	11:19	11:49
2	✓	✓		Overbrook	5:56	6:27	6:59	7:24	7:39	7:56	8:26	8:55	9:32	9:59	10:29	10:59	11:29	11:59
2	✓	✓		Merion	—	6:29	7:01	7:26	7:41	7:58	8:28	8:57	9:34	10:01	10:31	11:01	11:31	12:01
2	✓	✓		Narberth	—	6:31	7:03	—	7:43	8:00	8:30	8:59	9:36	10:03	10:33	11:03	11:33	12:03
2	✓	✓		Wynnewood	—	6:32	7:04	—	7:45	8:01	8:32	9:01	9:37	10:04	10:34	11:04	11:34	12:04
2	✓	✓		Ardmore	6:00	6:34	7:06	—	7:47	8:04	8:34	9:03	9:39	10:06	10:36	11:06	11:36	12:06
2	✓	✓		Haverford	6:02	6:36	7:08	—	7:49	8:05	8:36	9:05	9:41	10:08	10:38	11:08	11:38	12:08
3	✓	✓		Bryn Mawr	6:04	6:38	7:10	7:32	7:51	8:07	8:38	9:07	9:43	10:10	10:40	11:10	11:40	12:10
3	✓	✓		Rosemont	6:05	6:40	7:12	—	7:53	8:09	8:40	9:09	9:45	10:12	10:42	11:12	11:42	12:12
3	✓	✓		Villanova	6:07	6:42	7:14	—	7:55	8:11	8:42	9:11	9:47	10:14	10:44	11:14	11:44	12:14
3	✓	✓		Radnor (STN*)	6:09	6:44	7:16	7:37	7:57	8:13	8:44	9:13	9:49	10:16	10:46	11:16	11:46	12:16
3	✓			St. Davids	6:11	6:46	7:18	—	7:59	8:15	8:46	9:15	9:51	10:18	10:48	11:18	11:48	12:18
3	✓	✓	✓	Wayne	6:13	6:48	7:20	—	8:01	8:17	8:48	9:17	9:53	10:20	10:50	11:20	11:50	12:20
3	✓	✓		Strafford	6:15	6:50	7:22	7:41	8:03	8:19	8:50	9:20	9:55	10:22	10:52	11:22	11:52	12:22
4	✓	✓		Devon	6:17	6:52	7:24	—	8:05	8:21	8:52	9:22	9:57	10:24	10:54	11:24	11:54	12:24
4	✓	✓	✓	Berwyn	6:19	6:54	7:26	—	8:07	8:23	8:54	9:24	9:59	10:26	10:56	11:26	11:56	12:26
4	✓			Daylesford	—	D6:56	7:28	—	8:09	8:25	8:56	9:26	10:01	10:28	10:58	11:28	11:58	12:28
4	✓	✓		Paoli (Rt 204, 205, 206)	C6:22	C7:01	C7:31	C7:48	CD8:12	C8:28	CD8:59	C9:29	10:04	CD10:31	11:01	CD11:31	12:01	CD12:31
5	✓	✓		Malvern	6:25	—	7:34	—	8:15	8:31	9:02	9:32	10:07	10:34	11:04	11:34	12:04	12:34
5	✓		✓	Exton	6:31	—	7:40	—	—	8:37	—	9:40	10:13	—	11:10	—	12:10	—
5	✓			Whitford	6:33	—	7:42	—	—	8:39	—	9:42	10:15	—	11:12	—	12:12	—
5	✓			Downingtown	D6:38	—	D7:47	—	—	D8:44	—	D9:47	D10:20	—	D11:17	—	D12:17	—
5	✓		✓	Thorndale	6:43	—	7:57	—	—	8:49	—	9:52	10:25	—	11:27	—	12:27	—
				Coatesville	—	—	—	—	—	—	—	—	—	—	—	—	—	—
				Parkesburg	—	—	—	—	—	—	—	—	—	—	—	—	—	—
				Atglen	—	—	—	—	—	—	—	—	—	—	—	—	—	—
					AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM

Stations / Train Number	529 PM	531 PM	533 PM	535 PM	537 PM	539 PM	541 PM	2543 PM	545 PM	9547 PM	551 PM	553 PM	9555 PM	9559 PM
Temple University	12:04	12:34	1:04	1:34	2:04	2:34	3:04	3:10	3:43	3:58	4:09	4:33	4:35	4:54
Market East Station	12:10	12:40	1:10	1:40	2:10	2:40	3:10	3:16	3:49	4:06	4:16	4:39	4:42	5:00
Suburban Station	12:15	12:45	1:15	1:45	2:15	2:45	3:15	3:21	3:54	4:11	4:21	4:44	4:47	5:05
30th Street Station	12:19	12:49	1:19	1:49	2:19	2:49	3:19	3:25	3:59	4:15	4:25	4:48	4:51	5:09
Overbrook	12:29	12:59	1:29	1:59	2:29	2:59	—	3:35	4:09	—	4:35	—	5:01	—
Merion	12:31	1:01	1:31	2:01	2:31	3:01	E	3:37	4:11	E	4:37	E	5:03	E
Narberth	12:33	1:03	1:33	2:03	2:33	3:03	X	3:39	4:13	X	4:39	X	5:05	X
Wynnewood	12:34	1:04	1:34	2:04	2:34	3:04	P	3:40	4:14	P	4:41	P	5:07	P
Ardmore	12:36	1:06	1:36	2:06	2:36	3:06	—	3:42	4:16	R	4:43	—	5:09	—
Haverford	12:38	1:08	1:38	2:08	2:38	3:08	—	3:44	4:18	E	4:45	—	5:11	—
Bryn Mawr	12:40	1:10	1:40	2:10	2:40	3:10	3:34	3:46	4:20	S	4:47	5:03	5:14	5:24
Rosemont	12:42	1:12	1:42	2:12	2:42	3:12	3:36	—	4:22	S	4:49	5:05	—	5:26
Villanova	12:44	1:14	1:44	2:14	2:44	3:14	3:38	—	4:24	—	4:51	5:08	—	5:28
Radnor (STN*)	12:46	1:16	1:46	2:16	2:46	3:16	3:40	—	4:26	—	4:53	5:10	—	5:31
St. Davids	12:48	1:18	1:48	2:18	2:48	3:18	3:42	—	4:28	—	4:55	5:12	—	5:33
Wayne	12:50	1:20	1:50	2:20	2:50	3:20	3:44	—	4:30	4:35	E	5:14	—	5:35
Strafford	12:52	1:22	1:52	2:22	2:52	3:22	3:46	—	4:32	4:37	X	5:16	—	5:38
Devon	12:54	1:24	1:54	2:24	2:54	3:24	3:48	—	4:34	4:39	P	5:18	—	5:41
Berwyn	12:56	1:26	1:56	2:26	2:56	3:26	3:50	—	4:36	4:41	—	5:20	—	5:44
Daylesford	12:58	1:28	1:58	2:29	2:58	3:28	3:52	—	4:38	4:43	—	5:22	—	D5:46
Paoli (Rt 204, 205, 206)	1:01	C1:31	2:01	CD2:31	C3:01	CD3:31	3:55	—	CD4:41	C4:46	D5:05	C5:25	—	C5:50
Malvern	1:04	1:34	2:04	2:34	3:04	3:34	3:58	—	4:44	4:49	5:08	5:29	—	—
Exton	—	1:40	2:10	—	3:10	—	4:04	—	—	4:55	—	5:36	—	—
Whitford	—	1:42	2:12	—	3:12	—	4:06	—	—	4:57	—	5:38	—	—
Downingtown	—	1:47	D2:17	—	D3:17	—	D4:11	—	—	5:02	—	D5:43	—	—
Thorndale	—	1:52	2:27	—	3:27	—	4:16	—	—	5:07	—	5:50	—	—
Coatesville	—	1:56	—	—	—	—	—	—	—	5:12	—	—	—	—
Parkesburg	—	D2:02	—	—	—	—	—	—	—	D5:19	—	—	—	—
Atglen	—	2:08	—	—	—	—	—	—	—	5:25	—	—	—	—
	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM

Stations / Train Number	9561 PM	9563 PM	1565 PM	567 PM	9571 PM	573 PM	575 PM	577 PM	579 PM	581 PM	583 PM	585 PM	587 PM	589 PM	591 AM	1595 FRI ONLY
Temple University	4:56	5:02	—	5:32	5:50	6:01	6:32	7:02	7:34	8:14	8:34	9:04	10:04	11:04	12:04	—
Market East Station	5:03	5:09	—	5:39	5:58	6:07	6:40	7:10	7:40	8:20	8:40	9:10	10:10	11:10	12:10	1:10
Suburban Station	5:08	5:14	5:34	5:44	6:03	6:12	6:45	→ 7:15	7:45	8:25	8:45	9:15	10:15	11:15	12:15	1:15
30th Street Station	5:13	5:18	5:39	5:48	6:07	6:16	6:49	7:19	7:49	8:29	8:49	9:19	10:19	11:19	12:19	1:19
Overbrook		5:28	—	5:58	—	6:26	6:58	7:28	7:58	8:38	8:58	9:28	10:28	11:28	12:28	1:28
Merion		5:30	E	6:00	E	6:28	7:00	7:30	8:00	8:40	9:00	9:30	10:30	11:30	12:30	1:30
Narberth	GREAT	5:32	X	6:02	X	6:30	7:02	7:32	8:02	8:42	9:02	9:32	10:32	11:32	12:32	1:32
Wynnewood		5:34	P	6:04	P	6:32	7:03	7:33	8:03	8:43	9:03	9:33	10:33	11:33	12:33	1:33
Ardmore		5:36	R	6:06	—	6:34	7:05	7:35	8:05	8:45	9:05	9:35	10:35	11:35	12:35	1:35
Haverford		5:38	E	6:08	—	6:36	7:07	7:37	8:07	8:47	9:07	9:37	10:37	11:37	12:37	1:37
Bryn Mawr		5:41	S	6:11	6:23	6:38	7:09	7:39	8:09	8:49	9:09	9:39	10:39	11:39	12:39	1:39
Rosemont	VALLEY	—	S	6:13	6:25	—	7:11	7:41	8:11	8:51	9:11	9:41	10:41	11:41	12:41	1:41
Villanova		—	—	6:16	6:28	—	7:13	7:43	8:13	8:53	9:13	9:43	10:43	11:43	12:43	1:43
Radnor (STN*)		—	—	6:19	6:31	—	7:15	7:45	8:15	8:55	9:15	9:45	10:45	11:45	12:45	1:45
St. Davids		—	—	6:21	6:33	—	7:17	7:47	8:17	8:57	9:17	9:47	10:47	11:47	12:47	1:47
Wayne		—	6:02	E	6:36	—	7:19	7:49	8:19	8:59	9:19	9:49	10:49	11:49	12:49	1:49
Strafford	FLYER	—	6:05	X	6:39	—	7:21	7:51	8:21	9:01	9:21	9:51	10:51	11:51	12:51	1:51
Devon		—	6:08	P	6:42	—	7:23	7:53	8:23	9:03	9:23	9:53	10:53	11:53	12:53	1:53
Berwyn		—	6:11	—	6:45	—	7:25	7:55	8:25	9:05	9:25	9:55	10:55	11:55	12:55	1:55
Daylesford		—	6:13	—	6:47	—	7:27	7:57	8:27	9:07	9:27	9:57	10:57	11:57	12:57	1:57
Paoli (Rt 204, 205, 206)	D5:38	—	C6:18	CD6:31	C6:52	—	7:30	8:00	CD8:30	9:10	CD9:30	10:00	11:00	D12:00	D1:00	D2:00
Malvern	D5:42	—	6:23	6:34	6:56	—	7:33	8:03	8:33	9:13	9:33	10:03	11:03	12:03	1:03	2:03
Exton	D5:49	—	6:30	—	7:03	—	7:40	→ 8:09	—	9:19	—	10:09	11:09	—	—	—
Whitford	D5:52	—	6:32	—	7:05	—	7:42	8:11	—	9:21	—	10:11	11:11	—	—	—
Downingtown	D5:57	—	6:38	—	D7:11	—	D7:47	D8:16	—	D9:26	—	D10:16	D11:16	—	—	—
Thorndale	6:07	—	6:43	—	7:21	—	7:57	8:26	—	9:31	—	10:26	11:26	—	—	—
Coatesville	—	—	6:48	—	—	—	—	—	—	—	—	—	—	—	—	—
Parkesburg	—	—	D6:55	—	—	—	—	—	—	—	—	—	—	—	—	—
Atglen	—	—	7:01	—	—	—	—	—	—	—	—	—	—	—	—	—
	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	PM	AM	AM	AM

Evening Fares Apply

SEPTA Train 1595 operates on Friday Night (Saturday AM) only

Source: SEPTA, 2012

Proposed Rail Configuration

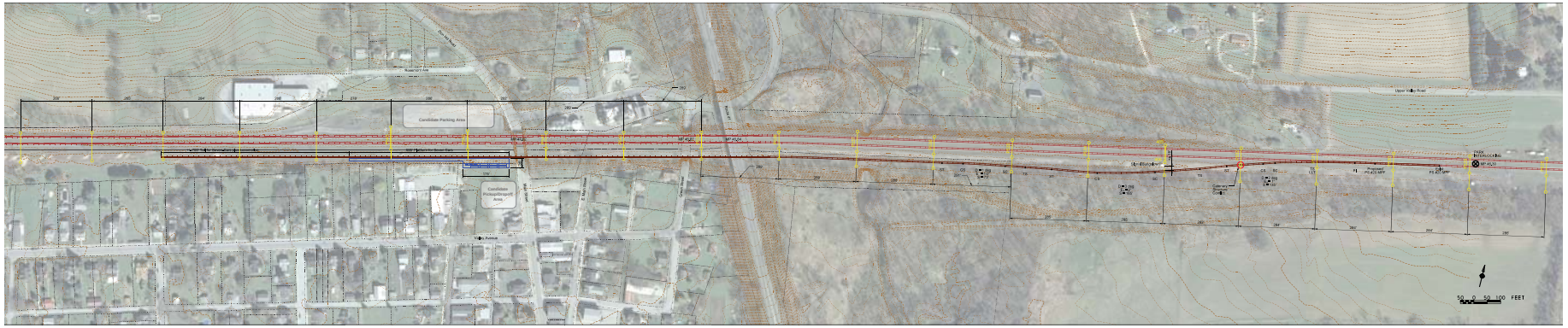
Figure 34 shows a preliminary track layout extending from Park Interlocking to the proposed station site. It is proposed that a future train service to Atglen use the trackbed of the former double track Atglen and Susquehanna (A&S) freight line, which runs adjacent and parallel to the south side of the Amtrak tracks. A new no. 20 turnout, anticipated in the design of the Park Interlocking, would diverge from the eastbound main track within the interlocking and connect to a new stub track. The new stub track would then extend west approximately 4,240 feet to the proposed station site and would terminate 700 feet west of the proposed station platform to allow for storage of a seven-car train with locomotive. To provide adequate clearance to an existing signal house in the vicinity of the proposed station platform, the stub track would be located on the southerly of the two A&S trackbeds.

This alignment, which will be suitable for 45 mph operation as it diverges from the Amtrak line, would require replacement of an existing portal type catenary structure at Park Interlocking. Additional catenary structure modifications within Park Interlocking would be required to terminate the catenary for the new track.

Beyond the interlocking, catenary for the proposed track can be supported on existing catenary structures, which would need to be rehabilitated. A new termination structure would be required at the end of the track, and the catenary for the new track would include a section break and motorized disconnect switch. Grounding and bonding of the station structures would also be required. It is anticipated that a new home signal and up to two additional signals, including associated track circuits and a tie in to the Park Interlocking control, would be required for signal operations.

The proposed track alignment on the southern A&S trackbed currently uses an existing double track bridge, owned by SEPTA, to cross over Main Street. Based on a cursory visual inspection and guidance from SEPTA staff, it is anticipated that this bridge would need to be replaced to accommodate future train service. The new bridge will need to be sufficiently wide to accommodate the new single track and an adjacent roadway for Amtrak maintenance vehicles. Access for Amtrak maintenance vehicles to both Park Interlocking and the existing signal house is currently provided via an unpaved ramp at the north end of East Main Street. This access location is proposed to remain in the future condition.

Figure 34: Proposed Track Layout



Proposed track alignment along existing A&S track bed

Existing A&S bridge over Main Street to be replaced

Station Concept Plan

Station Design Parameters

The initial step in developing a concept plan for Atglen Station was to determine the basic parameters for the primary station elements including platforms, buildings, parking, ADA accessibility, and multi-modal transportation access. The following parameters were discussed during the first SAC meeting and finalized based on input from SEPTA, Amtrak, Atglen Borough, PennDOT, and the Chester County Planning Commission:

Station Platform

As discussed earlier, only one platform is needed at this station due its location at the end of the proposed extension. Stakeholders agreed that the preferred station platform location is on the south side of the existing Amtrak tracks and to the west side of Main Street. This location takes advantage of SEPTA and Borough-owned property and avoids the need for carrying the platform on a structure over Main Street. It also provides excellent access to the heart of the Borough, including Borough Hall. SEPTA staff confirmed that the proposed platform should be high-level with a minimum width of 10 feet. The platform should be at least 595-feet long to accommodate a seven-car train.

Station Building

Stakeholders agreed that a station building is not necessary in Atglen because this stop is located at the end of the line and trains will typically be waiting at the station in advance of arriving passengers. However, a waiting area or shelter should be incorporated into the platform to provide protection from the elements during inclement weather.

Station Parking

For the purposes of station planning, it was agreed that providing 120 spaces at this station would be an adequate number for an assumed opening in year 2030. Additional parking can be explored in future phases as needed based on observed demand. Borough officials indicated that the overall station concept will need to incorporate a dedicated parking area adjacent to Borough Hall with the same amount of parking as the current parking lot (17 spaces). Stakeholders agreed that maximizing the supply of on-street parking would also be beneficial to the area.

Existing Amtrak maintenance operations on north parcel

Existing Borough Hall parking area

Bicycle & Pedestrian Access

Pedestrians accessing the station platform from the north side of the rail tracks can use the existing sidewalks beneath the bridge carrying the rail tracks over Main Street; therefore, no new tunnel or overpass is necessary for the proposed station. Adequate bicycle parking should be provided within the station footprint.

Handicapped Accessibility

In the existing condition, there is an approximate 14-foot change in grade between the Amtrak trackbed and the parking lot behind Borough Hall. The high-level platform creates an additional four foot rise from the trackbed. Based on these elevations, approximately seven 30-foot long ramp sections are necessary to provide ADA access to the new platform from the parking lot grade.

Per the Borough's subdivision and land development ordinance, five handicapped parking spaces are required for 120 parking spaces. Handicapped parking should be located on the south side of the tracks adjacent to the platform and ramps to provide an ADA-accessible path to the platform.

Bus Service

The County and SEPTA confirmed that the proposed station concept should accommodate future bus connections via either a SEPTA, Red Rose Transit, or TMACC-run service, including space for a stop location and layover. Analysis for turning radii and stop/layover space should be based on a 40-foot long transit bus. While there may be the potential to operate smaller shuttles, this was deemed to be a conservative approach that can accommodate any future increases in demand.

Vehicular Pick-up/Drop-off

The station concept should provide an area for vehicular drop-offs and pick-ups. To maximize convenience and accessibility, this area should be located on the south side of the tracks adjacent to the platform and ramps.

Existing sidewalk below A&S bridge

Preferred Station Concept

After determining the basic design parameters for the primary station elements, Urban developed alternative station layout concepts for evaluation by the SAC. The preferred station concept plan is shown on the opposite page in **Figure 36**. This arrangement best suited the combined needs of Amtrak, SEPTA, and Atglen Borough. Renderings showing how the station area could look are provided in **Figures 35 and 37**.

There was agreement among stakeholders that the north side Amtrak-owned parcel is best suited to provide commuter parking for the new station. The entrance and exit from this parking lot would be via a new driveway onto Rosemont Avenue. The existing stairway from the parking lot elevation down to the sidewalk would be upgraded or rebuilt in the same general area. Due to existing slopes, a short retaining wall will likely be needed along the north side of the parking lot.

The north side of the concept plan also reflects Amtrak's need to retain at least a portion of their parcel to store maintenance equipment and conduct other maintenance activities. A 25-foot wide work zone is shown between the rail tracks and the commuter parking lot with a physical separation feature between the parking lot and the work zone to prevent pedestrian access to the work zone. This feature could be incorporated into the parking lot design as a railing, low wall, or some other type of aesthetic barrier. Standard inter-track fencing should also be provided between the work zone and the Amtrak tracks.

The south side of the concept plan contains the platform and associated access features, a vehicular pick-up/drop-off area, handicapped parking spaces, and a Borough parking area. A 595-foot long station platform is proposed on the south side of the new stub end track. Most of the platform would be 10-feet wide, although the main portion of the platform to the north of Borough Hall would widen to 18-feet to accommodate a potential waiting area and provide additional space for circulation to and from the platforms. Due to the difference in elevations, stairs and ADA-compatible ramps are necessary on the south side of the platform to provide access from the parking lot grade. A canopy would be provided over the stairs, ramps, and wider section of the platform. Standard inter-track fencing should be provided between the SEPTA tracks and Amtrak tracks.

Figure 35: Station Renderings

Figure 36: Preferred Station Concept

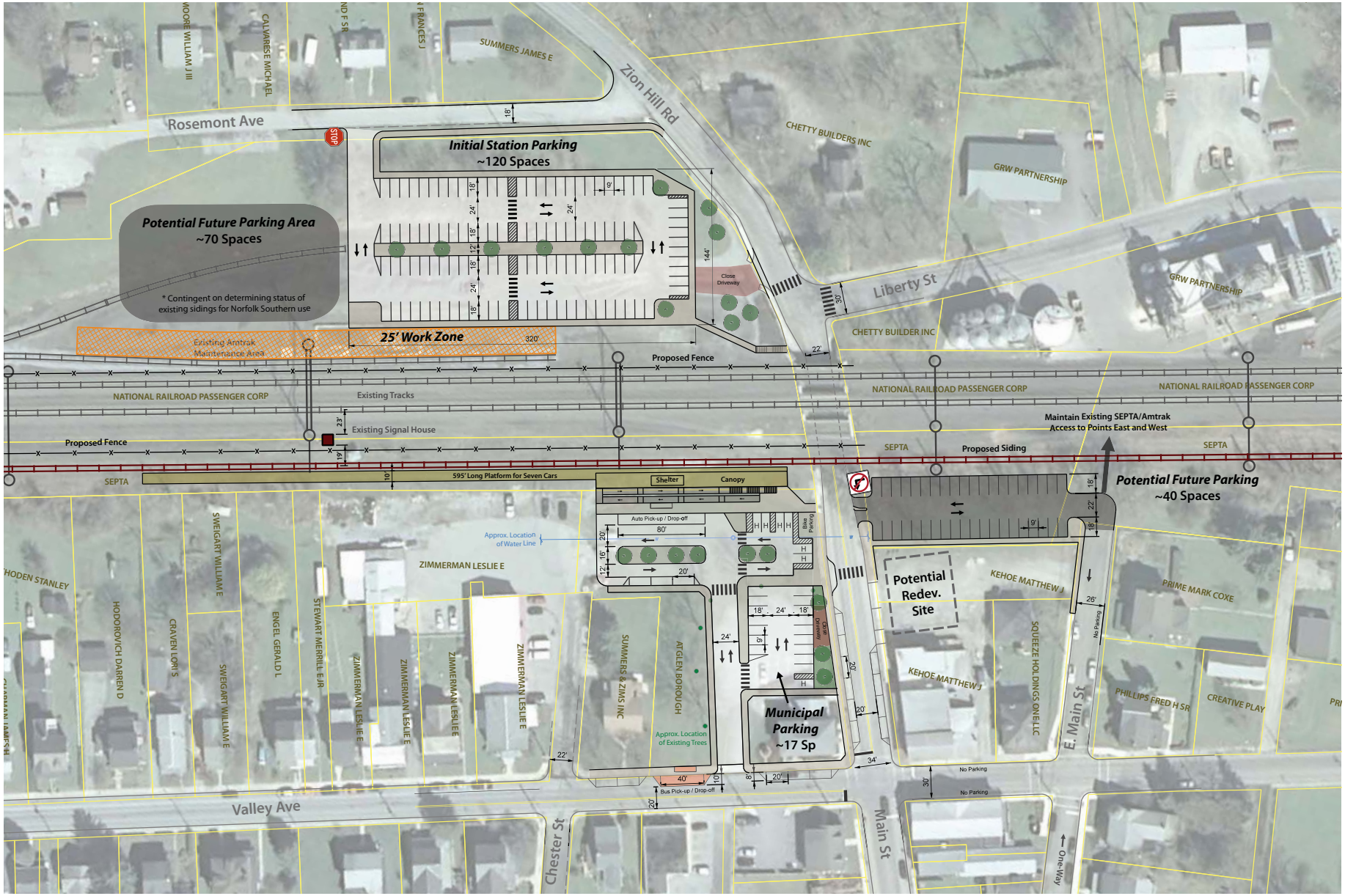


Figure 37: Station Rendering from Above

Multi-Modal Access Plan

Parking

The preferred station concept plan provides 120 commuter parking spaces on the north side parcel, which could be expanded to the west based on the future need for Norfolk Southern's existing siding and future demand for parking. Adjacent to the south side of the platform, the concept plan provides six handicapped and three short-duration parking spaces along with a distinct 17-space parking lot for Borough use. A future 40-space parking lot could be developed on the SEPTA-owned parcel to the east of Main Street if warranted by future demand. The station area layout also shows 10 on-street spaces along Main Street between the bridge and Valley Avenue to provide short-duration parking for local businesses and Borough Hall.

Vehicular Access

The entrance and exit to the commuter parking lot on the north side would be via a new driveway onto Rosemont Avenue, while the existing access driveway on the west side of Zion Hill Road would be closed. It is recommended that this driveway be stop-controlled and that two-way circulation be provided through the parking lot.

On the south side of the tracks, the area adjacent to the west side of the proposed platform would be used as a vehicular pick-up/drop-off zone. Vehicles would enter and exit this area from the existing driveway off Valley Avenue on the west side of Borough Hall. The Valley Avenue driveway would also be used to access the handicapped and Borough Hall parking areas.

Minimal impacts to Atglen's roadway network are anticipated from traffic generated by the train station. Queues into and out of Rosemont Avenue will likely develop coincident with arriving and departing trains; however, these queues should clear quickly based on the low volumes on adjacent roadways and the limited level of train service.

Existing Amtrak access for maintenance vehicles

Existing driveway off Zion Hill Road

Bicycle & Pedestrian Access

Pedestrians accessing the station platform from the north side of the rail tracks would use the existing sidewalks beneath the bridge carrying the rail tracks over Main Street, with the main entrance to the station located on the west side of Main Street just south of the overpass. This area should include seating, signage, landscaping, and extra sidewalk space to create an attractive entrance to the station. Bicycle parking should also be provided at the entrance area.

An internal network of sidewalks is proposed to provide pedestrian circulation through the station area. Also proposed is a new crossing of Main Street just to the south of the overpass to accommodate pedestrians walking to the station from the east side of Main Street. A curb extension is shown at this location to reduce the crossing distance and provide better visibility for pedestrians.

Future Bus Service

Future bus service to Atglen Station would likely be either a TMACC-run service or an extension of SEPTA fixed-route service. An extension of Red Rose Transit's bus service to Atglen Station may also be a consideration as a way to provide transit access to and from Lancaster County. Depending on the overall origin and destination of the service, the bus could use a combination of Main Street, Valley Avenue, Chester Street, High Street, and Ridge Avenue to access the station area and then return to Route 41.

Several locations were considered for accommodating a bus stop within the station area, including the proposed vehicular pick-up/drop-off zone to the south of the platform and the SEPTA parcel on the east side of Main Street. However, creating a bus area near the platform that is large enough to accommodate the turning radius for a 40-foot bus would expand the station footprint onto adjacent properties, which the stakeholders agreed should be avoided. Also, the SEPTA parcel to the east of Main Street was viewed as a valuable parcel for parking or future development. In the end, the north side of Valley Avenue fronting the Borough-owned parcel was selected as the preferred stop location because it keeps the station footprint contained within SEPTA and Borough-owned property and is easily accessible to the platform. Signage and rider amenities such as a shelter are recommended at this location.

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Preliminary Cost Estimates

Rail Operating Costs

Annual operating costs were developed by SEPTA service planning staff in 2012 dollars. The annual cost estimates, as displayed in **Figure 38**, include expenses for labor, propulsion, Amtrak access fees, vehicle maintenance expenses, and supplemental SEPTA service east of Paoli for the 15 trip scenario. These estimates do not include farebox revenue generated by the service or the potential annual cost for SEPTA to lease the north side parcel from Amtrak for commuter parking.

Figure 38: Annual Operating Expenses – SEPTA Service Extension to Atglen

Daily weekday trips to Atglen	Estimated Annual Cost
7 trips	$1.025 M
15 trips	$2.078 M

Source: SEPTA, 2012

Rail Capital Costs

The capital cost estimate for the rail infrastructure includes items related to sitework, track, signals, electrification, and bridge structures. Sitework consists of clearing trees and other vegetation that have grown onto the A&S right-of-way, minor grading work to restore a profile suitable for connection to the Amtrak main track, and preparation of the roadbed for track construction. Trackwork consists of a new no. 20 turnout and new track terminating with a bumper post. Signal costs include a new home signal and up to two additional signals, along with associated track circuits and connections with a tie in to the Park Interlocking control. Electrification costs include replacement of an existing portal catenary structure at Park Interlocking, catenary structure modifications within Park Interlocking, rehabilitation of existing catenary structures, and new catenary for the proposed track. This category also includes estimates for a new termination structure at the end of the track, a section break and motorized disconnect switch, and grounding and bonding of the station structures. The structural cost for the bridge over Main Street assumes replacement of the superstructure along with associated repairs to the beam seats and abutments.

The total estimated cost for rail infrastructure is **$7.9 million**. This cost is in 2012 dollars and includes engineering design (10% of total), construction inspection/ management (15% of total), and a 25% contingency. An itemized preliminary cost estimate is provided on the following page in **Figure 39**.

Station Capital Costs

The capital cost estimate for the station area includes items related to platforms, parking areas, and roadway improvements. The platform work consists of high-level concrete platforms, foundations, canopies, railings, ramps, stairs, and associated handrails. The parking area and roadway costs include earthwork, retaining walls, paving, and pedestrian/bicycle elements. This category also includes allowances for utilities, landscaping, drainage, lighting, and signage/striping.

The total estimated cost for the station area infrastructure is **$6.4 million**. This cost is in 2012 dollars and includes engineering design (10% of total), construction inspection/management (15% of total), and a 25% contingency. An itemized preliminary cost estimate is provided in **Figure 39,** while **Figure 40** shows the combined project cost estimate for rail and station elements.

Note that a lease agreement between Amtrak and SEPTA would likely be used to secure access to the north parcel instead of full parcel acquisition. Potential leasing costs are not included in this estimate.

Figure 40: Combined Project Cost for Atglen Station

Rail Infrastructure	$7,900,000
Station Area	$6,400,000
Preliminary Project Cost	**$14,300,000**

Figure 39: Itemized Capital Cost Estimate

Item	Quantity	Unit	Unit Cost	Total
Rail Infrastructure				**$5,048,000**
Clearing & Grubbing	3	ACRE	$10,000	$30,000
Grading	12900	SY	$20	$258,000
Subballast	14200	SY	$10	$142,000
New Track incl ballast	4270	LF	$200	$854,000
New #20 Turnout	1	EA	$800,000	$800,000
Bumper Block	1	EA	$8,500	$9,000
Replace Catenary Structure	1	EA	$262,000	$262,000
New Catenary Structure	1	EA	$55,000	$55,000
Rehab Existing Catenary Structures	12	EA	$20,000	$240,000
New Catenary	4870	LF	$100	$487,000
Section Break & Disconnect Switch	1	EA	$100,000	$100,000
New Signals	1	LS	$1,100,000	$1,100,000
Timber 7 Asphalt Grade Crossing	20	LF	$150	$3,000
Replace Bridge	1200	SF	$500	$600,000
Rehab Bridge Abutments	900	SF	$120	$108,000
Station Platform				**$1,285,000**
High-Level Platform	1	LS	$290,000	$290,000
Platform Foundation	1	LS	$250,000	$250,000
Steel Canopy	1	LS	$285,000	$285,000
Rear Platform Railing	630	LF	$360	$227,000
ADA Ramps/Stairs	1	LS	$120,000	$120,000
Handrails	625	LF	$180	$113,000
Station/Parking Areas				**$2,786,000**
Earthwork	7790	CY	$30	$234,000
Retaining Walls	1	LS	$270,000	$270,000
Security Fence	2700	LF	$35	$95,000
Pave/Subbase Parking Area	10350	SY	$56	$580,000
Sidewalks/Plaza Areas	2460	SY	$120	$296,000
Concrete Curb	6350	LF	$57	$362,000
Shelters	2	EA	$10,000	$20,000
Bike Racks	10	EA	$2,000	$20,000
Benches	10	EA	$2,850	$29,000
Utility Allowance	1	LS	$150,000	$150,000
Landscaping Allowance	1	LS	$200,000	$200,000
Drainage Allowance	1	LS	$200,000	$200,000
Lighting Allowance	1	LS	$300,000	$300,000
Signage/Striping Allowance	1	LS	$30,000	$30,000
Preliminary Construction Cost				**$9,119,000**
Engineering Design @ 10%				$912,000
Construction Mgmt/Inspection @ 15%				$1,368,000
Subtotal				$11,399,000
Contingency @ 25%				$2,850,000
Preliminary Project Cost				**$14,249,000**

**** All costs are in 2012 dollars ****

Appendix A: Traffic Count Data

Count: #1
Location: Valley Avenue and Main Street
Date: 3/7/2012

Atglen Station Concept Plan
Atglen Borough, PA
Urban Engineers, Inc.

Cars - Peds

	Main Street Southbound					Valley Avenue Westbound					Main Street Northbound					Valley Avenue Eastbound				
Start Time	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	1	9	7	*0*	17	8	17	0	*0*	25	14	6	4	*1*	25	7	3	5	*1*	16
4:15 PM	2	12	14	*3*	31	14	19	2	*1*	36	21	6	1	*0*	28	5	6	9	*2*	22
4:30 PM	0	5	7	*0*	12	6	10	0	*0*	16	14	10	7	*0*	31	2	5	9	*0*	16
4:45 PM	0	6	4	*0*	10	7	11	2	*0*	20	12	5	3	*2*	22	1	12	9	*0*	22
Total	3	32	32	*3*	**70**	35	57	4	*1*	**97**	61	27	15	*3*	**106**	15	26	32	*3*	**76**

Trucks - Buses

	Main Street Southbound					Valley Avenue Westbound					Main Street Northbound					Valley Avenue Eastbound				
Start Time	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	0	1	1		2	1	0	0		1	2	0	0		2	0	0	0		0
4:15 PM	0	2	0		2	0	0	0		0	1	1	0		2	0	0	1		1
4:30 PM	0	0	0		0	2	0	0		2	1	0	0		1	0	0	1		1
4:45 PM	0	0	0		0	0	0	0		0	1	0	0		1	0	0	2		2
Total	0	3	1		**4**	3	0	0		**3**	5	1	0		**6**	0	0	4		**4**

Cars - Trucks - Buses - Peds

	Main Street Southbound					Valley Avenue Westbound					Main Street Northbound					Valley Avenue Eastbound				
Start Time	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	1	10	8	*0*	19	9	17	0	*0*	26	16	6	4	*1*	27	7	3	5	*1*	16
4:15 PM	2	14	14	*3*	33	14	19	2	*1*	36	22	7	1	*0*	30	5	6	10	*2*	23
4:30 PM	0	5	7	*0*	12	8	10	0	*0*	18	15	10	7	*0*	32	2	5	10	*0*	17
4:45 PM	0	6	4	*0*	10	7	11	2	*0*	20	13	5	3	*2*	23	1	12	11	*0*	24
Total	3	35	33	*3*	**74**	38	57	4	*1*	**100**	66	28	15	*3*	**112**	15	26	36	*3*	**80**
% Heavy	0.0%	8.6%	3.0%		5.4%	7.9%	0.0%	0.0%		3.0%	7.6%	3.6%	0.0%		5.4%	0.0%	0.0%	11.1%		5.0%

Count: #2
Location: Route 41 and Lower Valley Road
Date: 3/7/2012

Atglen Station Concept Plan
Atglen Borough, PA
Urban Engineers, Inc.

Cars - Peds

	Route 41 Southbound					Lower Valley Road Westbound					Route 41 Northbound					Lower Valley Road Eastbound				
Start Time	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	6	39	4	*0*	49	5	25	16	*0*	46	13	80	2	*0*	95	2	14	5	*0*	21
4:15 PM	3	52	6	*0*	61	1	29	13	*0*	43	5	76	1	*0*	82	9	13	6	*0*	28
4:30 PM	15	73	4	*0*	92	2	19	12	*0*	33	10	69	0	*0*	79	1	11	9	*2*	23
4:45 PM	7	59	6	*0*	72	2	17	7	*0*	26	12	66	1	*0*	79	2	6	8	*0*	16
Total	31	223	20	*0*	**274**	10	90	48	*0*	**148**	40	291	4	*0*	**335**	14	44	28	*2*	**88**

Trucks - Buses

	Route 41 Southbound					Lower Valley Road Westbound					Route 41 Northbound					Lower Valley Road Eastbound				
Start Time	Left	Thru	Right	Peds	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	3	34	0		37	2	1	5		8	0	18	0		18	0	1	1		2
4:15 PM	2	8	1		11	3	0	2		5	0	12	0		12	0	0	0		0
4:30 PM	1	13	0		14	2	0	4		6	1	19	0		20	0	2	0		2
4:45 PM	0	5	0		5	1	0	4		5	0	16	0		16	1	1	1		3
Total	6	60	1		**67**	8	1	15		**24**	1	65	0		**66**	1	4	2		**7**

Cars - Trucks - Buses - Peds

	Route 41 Southbound					Lower Valley Road Westbound					Route 41 Northbound					Lower Valley Road Eastbound				
Start Time	Left	Thru	Right	Peds	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total	Left	Thru	Right	*Peds*	Total
4:00 PM	9	73	4	0	86	7	26	21	*0*	54	13	98	2	*0*	113	2	15	6	*0*	23
4:15 PM	5	60	7	0	72	4	29	15	*0*	48	5	88	1	*0*	94	9	13	6	*0*	28
4:30 PM	16	86	4	0	106	4	19	16	*0*	39	11	88	0	*0*	99	1	13	9	*2*	25
4:45 PM	7	64	6	0	77	3	17	11	*0*	31	12	82	1	*0*	95	3	7	9	*0*	19
Total	37	283	21	0	**341**	18	91	63	*0*	**172**	41	356	4	*0*	**401**	15	48	30	*2*	**95**
% Heavy	16.2%	21.2%	4.8%		19.6%	44.4%	1.1%	23.8%		14.0%	2.4%	18.3%	0.0%		16.5%	6.7%	8.3%	6.7%		7.4%

Appendix B: Ridership Methodology

Original DVRPC Methodology for Paoli-Thorndale Extension Study (2007)

	Central Stations *Thorndale, Downingtown, Whitford, Exton*	Western Stations *Atglen, Parkesburg, Coatesville*	
Step #1			
Population (2000)	313,889		* - East Whiteland omitted (see note)
Station Boardings (2005)	1,586		
Boardings per Capita	0.00505	0.00505	
Projected Population (2020)		168,226	DVRPC, adopted 2002
Projected Station Boardings (2020)		***850***	
Step #2- Ridership Adjustments			
Inter-municipal work trips (2000)	134,935	62,555	
-Trips to Phila	8,630	1,302	
-Ratio to Phila.	6.4%	2.1%	
Difference (in ratio to Phila.):		3.07	times less likely to commute to Phila. from Western than from Central
Projected Station Boardings (2020)		850	
Adjustment Factor		3.07	
Adjusted Station Boardings:		277	without Amtrak subtracted
		49	Amtrak (Coatesville/Parkesburg)
		228	with Amtrak subtracted
Total Generated Trips (SEPTA):		**456**	

Update (4/2012)				Notes:
Central Stations *Thorndale, Downingtown, Whitford, Exton*	Western Stations *Atglen, Parkesburg, Coatesville*			
	HORIZON YEAR			
	2020	**2030**	**2040**	
263,360 (1) 2,003				2010 Census Population and 2011 License Plate Surveys and modified DVRPC method for delienating station commute sheds 2011 SEPTA only station boardings
0.00761 →	0.00761	0.00761	0.00761	
Projected Population	186,035	210,355	225,876	DVRPC and Lanco Population Forecasts (adopted 2012)
Projected Station Boardings	***1,415***	***1,600***	***1,718***	
93,525 5,089 5.4%	62,555 1,302 2.1%			2000 CTPP and 2011 License Plate Surveys and modified DVRPC method for delienating station commute sheds
Difference (in ratio to Phila.):	2.61	times less likely to commute to Phila. from Western than from Central		
Projected Station Boardings	1,415	1,600	1,718	
Adjustment Factor	2.61	2.61	2.61	
Adjusted Station Boardings:	541	612	657	
Total Generated Trips (SEPTA):	**1,082**	**1,224**	**1,314**	

(1): The reduction in the Central Station ridershed population between 2000 and 2010 is due to the adjustment of the ridershed delineation. The updated ridershed (included 30 municipalities) was significantly smaller than the original ridershed (included 42 municipalities).